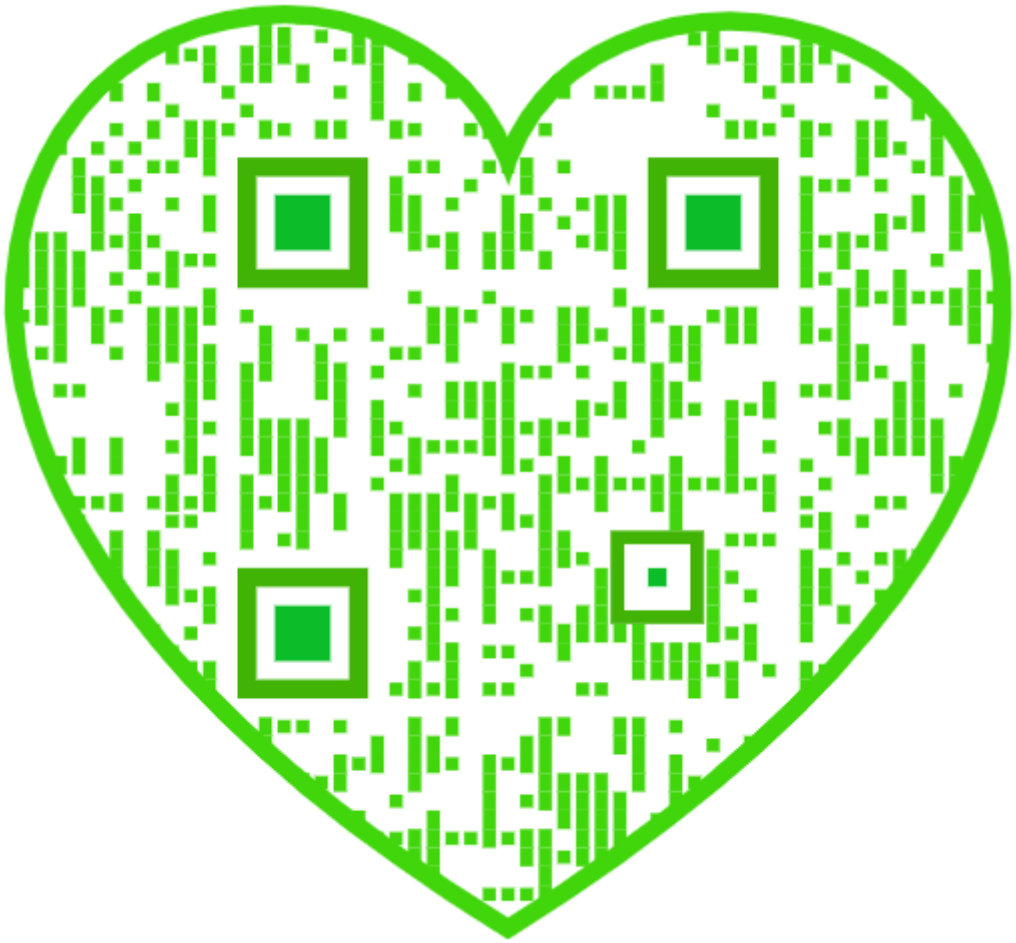

THE ARCHITECT

VOLUME XVI · NUMBER 1
JULY 1918

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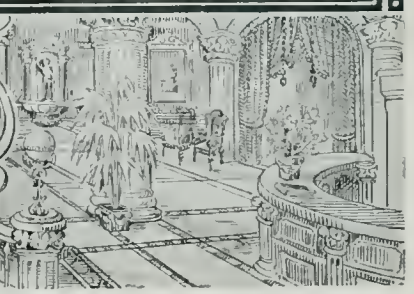

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Vol. XVI. No. 1

THE ARCHITECT

Published by
THE ARCHITECT PRESS

Associate Editors for July, 1918
Professor D. L. SNADER, Clarksville, Tenn.
IRVING F. MORROW, San Francisco
RAY BOYNTON, San Francisco

HARRIS ALLEN
EDITOR

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¶ Published in the interest of the architectural profession, on the first of each month, at 245 Mission Street, San Francisco. Entered as second class matter August 4, 1911. Subscription price in the United States and possessions, $5.00 a year; foreign and Canadian, $6.00 a year. Single copies, $1.00.

¶ Changes in, or copy for new advertisements, must reach the office of publication not later than the fifteenth of the month preceding issue. Advertising rates and any other information will gladly be given on application.

¶ The editor will be pleased to consider contributions of interest to the profession. When payment for same is desired, this fact should be stated.

are designed. But this whole unsymmetrical, utilitarian, internal structure is concealed in a perfectly symmetrical sheath of the most exquisitely beautiful outline. In a similar way a building may conceal its skeleton load-supporting framework of steel by a more ornamental covering of bricks, stone, or terra cotta; yet the structural parts will be evident and displayed at the more prominent points of support. And we may safely say that a building will be beautiful when the same amount of concealment and the same amount of display of construction is preserved as in the human body; where different parts have different functions and where ornament in like amount is added, to beautify without interfering with the use or function of the member.

We may also add that it is in nature's highest works that we find this symmetry of proportion most prominent. In the lower types of animals it is not so evident, among trees and vegetables still less so, and in the mineral kingdom among rocks and stones it is not present at all. This principle is universal in nature, and hence we may say that examples of architecture are beautiful in proportion to the extent to which they conform to the highest types of nature in which this symmetrical arrangement is followed.

Figure 2. RHEIMS CATHEDRAL. West Front

Now a closer analysis may help toward understanding in some degree these natural principles and processes of which we have been talking; and in my analysis I shall try to discover correlations between things in nature which at first sight are apparently unrelated, and thus, if possible, to lead on to the application of these discovered correlations to design, where they may aid in working harmoniously and rythmically toward some desired end.

Now we mentioned above that nature does not work according to any hard and fast rules and laws, and this seems true at first sight and even after some examination, for no two trees even of the same kind ever put forth their branches in just the same manner, no two leaves from the same tree, similar and unmistakable though they may be, were ever exactly alike; no two persons look alike though they have similar members and features.

But we believe there are certain general laws and rules in nature which are discoverable and which may be formulated by our crude understanding after some fashion. The difficulty of application to design lies in the fact that these rules and truths on the fulfillment of which beauty depends are not always present, at least consciously, in the mind of the designer who creates a work, or of the person who contemplates it.

One of the first of these truths that I desire to state is the law of Unity, which, defined, means singleness, mutual cooperation, harmony. This law, we observe, holds in nature's works, be the object simple, complex, or one possessing considerable variety.

A second truth is that of polarity or duality, the character of being composed of two, and which does not contradict but rather supplements the first. These two terms of polarity have reference to the physical difference of sex, for all things are either masculine or feminine; and they are endlessly repeated throughout nature; being manifested in day and night, man and woman, in the straight lines and curved lines of all trees and flowers, and so on.

The characteristics of these two terms, as you may suspect, are for the masculine, primal and active manifestations; for the feminine, secondary and passive. These two characteristics, I take it, are fundamental throughout all nature, and the distinction between the two is a distinction far beyond mere words. In painting there are warm colors and cold colors, the red which excites and the blue which quiets. In design there are the straight lines and free flowing lines, light masses and dark masses. In architecture there are the straight, vertical, aspiring lines, full of effort, as in the great Gothic cathedral of the Middle Ages, with its slender supports, balanced thrusts, and its tall upward reaching pinnacles which seem to be ever rising toward the heavens (see Frontispiece and Figs. 1 and 2); also horizontal lines, restful to the eye, as in the Greek temple

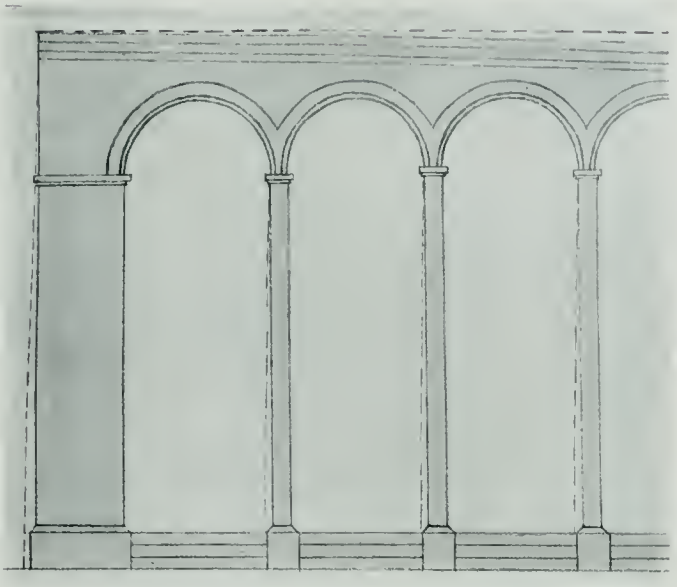

Figure 5. Diagram of Portion of Arcade. Cathedral of Pisa.

which is passive, where all is calm, tranquil and reposeful.

These two masculine and feminine characteristics of things are clearly illustrated in nature, in trees, foliage and flowers. The trunk of the tree with its hard straight line is the masculine; its foliage, soft, curved and flowing, the femine. And again in each stem and leaf the two are repeated. This may also be shown by two different types of leaves, the one straight, vertical, stiff and regular being the masculine, the other curved, somewhat horizontal, with free, flowing, softer outline being the feminine (Fig. 3); or again in the sort of lily form which consists of a single straight and rigid spadix, the masculine, embraced and surrounded by a soft and most tenderly curved spathe or envelope, the feminine (Fig. 4). These few examples are but typical and an examination of other forms of nature will reveal this same duality, the same two characteristics.

Figure 3. Types of Leaves

Figure 4. Lily Form

Now to make an application of this truth of nature to architecture. It is true that some forms have been developed as the result of a need, a necessity, the function or need to be met seeking for and finding its most appropriate form. And this is only another way of stating that "form follows function," as in the case of the Gothic buttress. But some architectural forms have been developed not as the result of the law that "form follows function," and these are interesting and beautiful because of the fact that in their design the masculine and feminine characteristics have been carefully worked out. They do not exist to fulfill some requirement of utility, but their reason for being is the more abstract law of beauty, and in expressing this law the construction is often weakened and sometimes falsified. An example of this is the familiar classic console or modillion, or in more common terms simply a bracket. A bracket is supposed to give strength and support to the structure above, its function is to hold something up, and its general shape and outline are well enough adapted to its function as a supporting member, since it is embedded in, and projects from a wall. Yet its surface is ornamented and embellished with a peculiarly beautiful scroll which it seems gives it the appearance of not being built into the wall but of being fastened against it in some manner. And so, while its functional expressiveness is to some extent lost, the exquisite beauty obtained through contrast of the delicately curving double spiral, with the straight lines of the moulding which sub-

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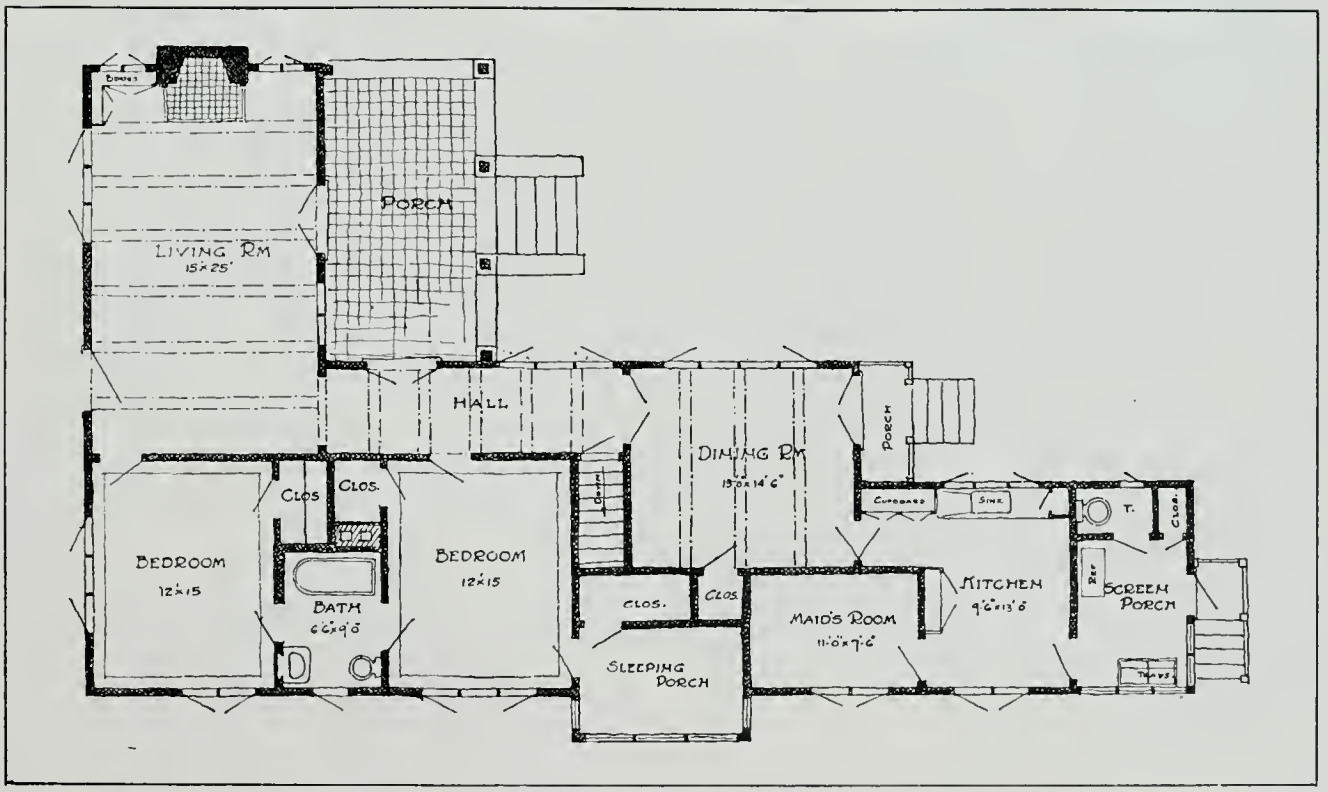

MAIN FLOOR PLAN

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ELMER GREY, Architect

HOUSE FOR ELMER GREY, PASADENA

ELMER GREY Architect

PERGOLA

FOUNTAIN IN PERGOLA

HOUSE FOR ELMER GREY, PASADENA

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GARDEN SIDE

ENTRANCE PORCH

HOUSE FOR ELMER GREY, PASADENA

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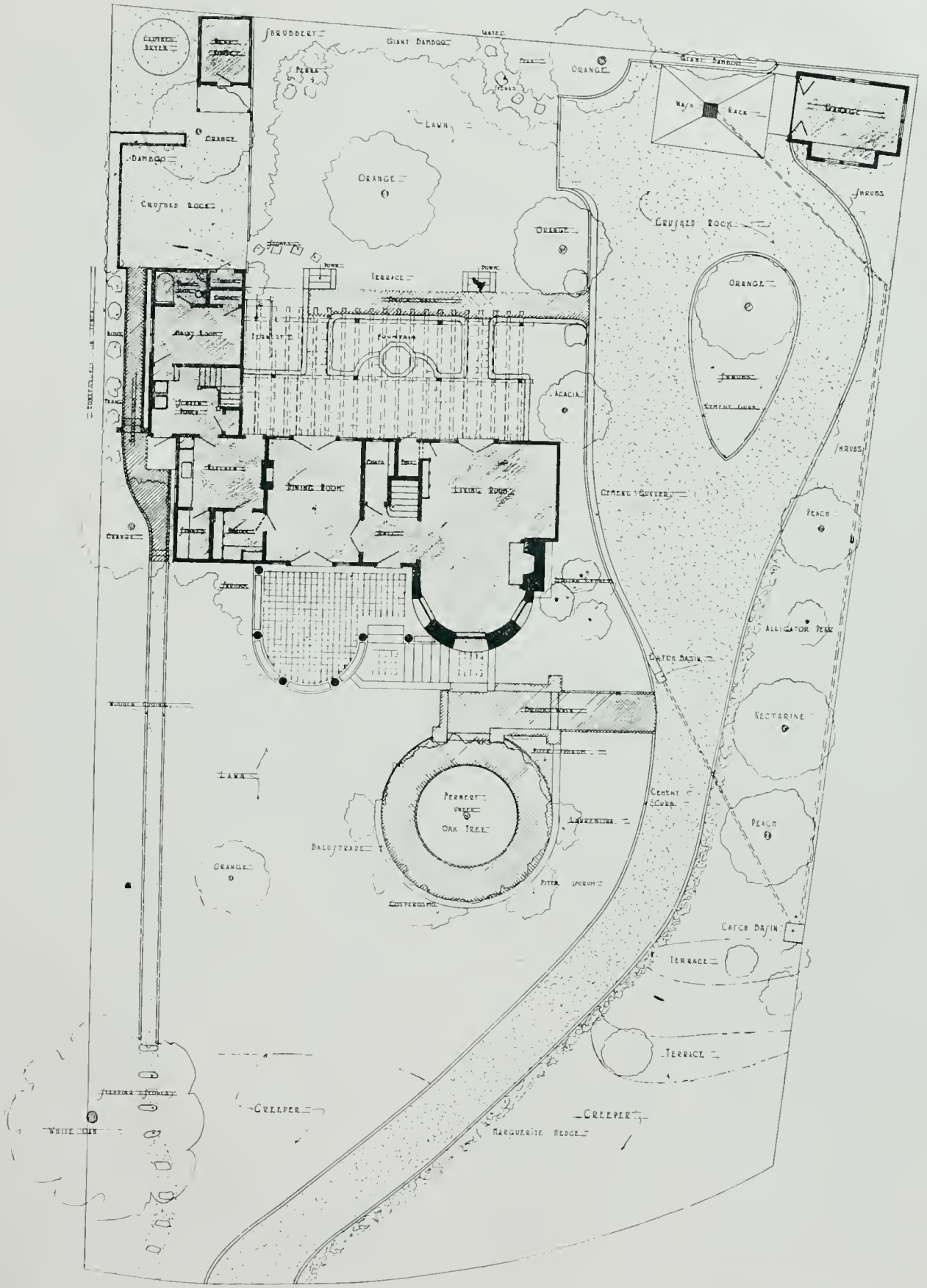

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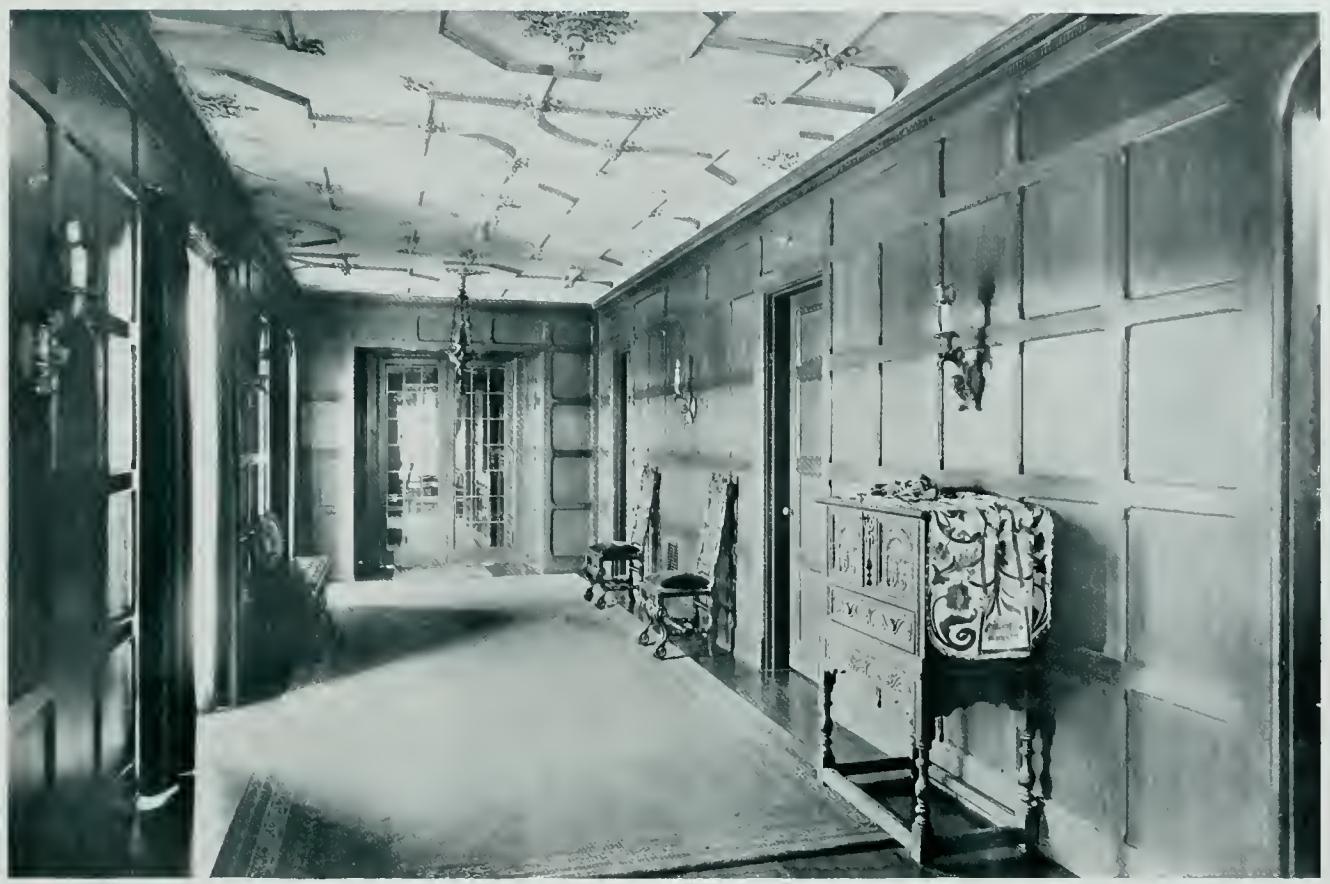

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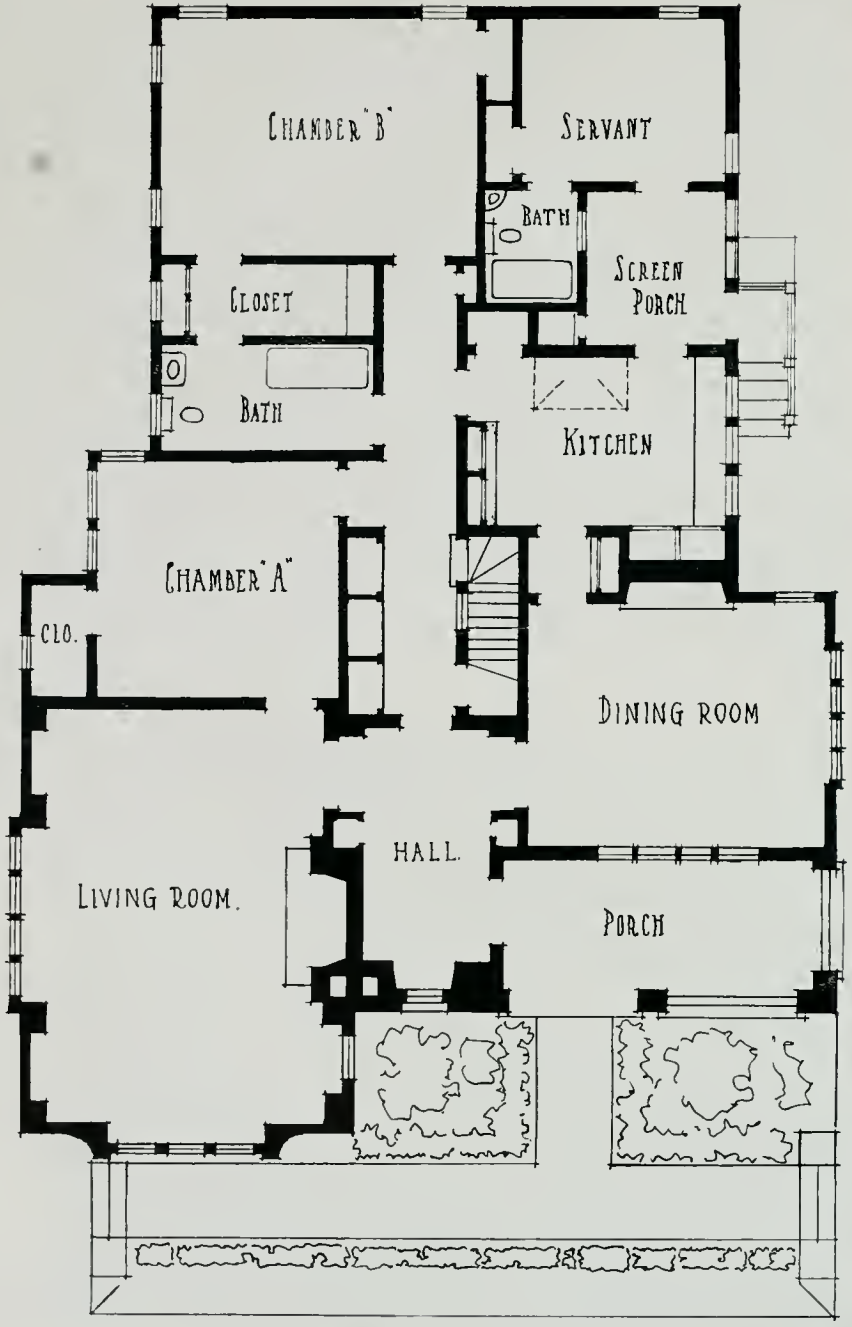

FIRST FLOOR PLAN

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HOUSE FOR F. H. WHITE, JR., PASADENA

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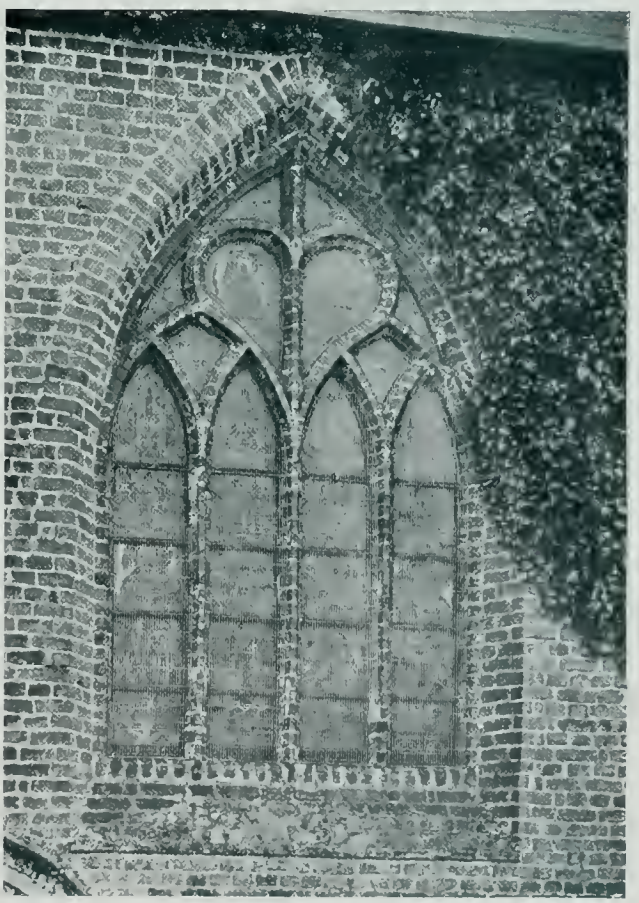
Gable on East Front of Buildings at Sissinghurst Castle

Gable on West Front of Buildings at Sissinghurst Castle

Crow-stepped Porch, Brunger's Farm, Tenterden



North-west Window of Smallhythe Church

EXAMPLES OF KENTISH BRICKWORK

Reproduced from "The Architectural Review", London

HALLIDIE BUILDING, SAN FRANCISCO

WILLIS POLK & CO., Architects

THE ARCHITECT

VOL. XVI SAN FRANCISCO, JULY, 1918 NO. 1

Editorial.

A communication from the College of Architecture of the University of Michigan, which appears on another page of this issue, has caused us to stop and think twice. What, we seem to hear in query from those maliciously inclined, can have proved adequate provocation for an indulgence so unwonted?

The first note announces draughting courses for training women to replace the large number of men called from this pursuit, and is accompanied by the expression of a "hope that the architectural press will do all in its power to interest students in the architectural schools. Unless this is done, there is going to be a serious shortage of trained architects after the war, and the shortage will be greater in proportion to its duration. This would, of course, be a real menace to the architectural development of our country."

With this we are in hearty accord. It has been found that the old maxim, "in times of peace prepare for war," is fallacious—unless one really wants the war. But from the contrary contention, in times of war prepare for peace, there can be no intelligent dissent—save, again, from those who really prefer the war;—and the necessity for such preparation, and its intensity, become the more exigent in proportion as the war is protracted and subversive of established preconceptions. The premium on effort directed toward the prosecution of the war should not be allowed to divert attention from the importance of effort directed toward anticipating the problems of reconstruction. Peace, however near or remote, must inevitably reappear; and however permanent or precarious the basis upon which it shall be re-established, it is bound to occupy longer periods of man's time than the most protracted of wars. All possible support should be given to those activities which aim at the elimination of waste, error and retrogression, in the readjustment to normal conditions, and especially to those activities which foster the amenities and culture formerly supposed to be characteristic of civilized life as distinguished from barbaric existence.

It is the second note which has made us pause to consider. It announces that, due to conditions created by the war, requirements in scientific construction have been increased "beyond the heretofore normal requirements in architectural schools;" also that elective courses are available in preparation for specific technical service.

Just why the conditions created by the war should make it desirable for an architect to devote a greater proportion of his training to scientific construction is not clear, nor is any further explanation vouchsafed. We have, of course, no fear that the average architect will become structurally over-proficient. Yet increased attention to this phase of his work can only be at the expense of decreased attention to design and general culture. The greatest deficiency in the training of the architect today is on the side of real liberal education, of breadth of vision and appreciation. In the absence of information as to the reasons of the University of Michigan for increasing the emphasis on the technical side, we can only assume that the motive is a desire to be "abreast of the times" and to become "efficient." To avoid misunderstanding, we hasten to explain that, as commonly understood, being "abreast of the times" means helping to push the crowd wherever it thinks it wishes to go, and "efficiency" is the ability to push with force, certainty, and expedition. But, we are tempted to cry a little petulantly, in the fashion of the distracted refrain of the aged Geronte, what the devil is the university doing in that galley, anyway? It is the business of the university to be ahead of the times, as well as behind them and all around them; to strive to lead the community in the light of the reason and of the ideals of those of its members who are at once the best trained and the most enlightened. With the ordinary mechanical efficiency it has no concern, because its aims are ulterior to the achievement of results which are immediate and measurable. If the university relax into a technical school, where shall our ideals be nourished?

We had thought that if any lesson in regard to architectural or any other education was patent to the reflective observer in the conditions created by the war, it was the fallacy of an over-insistence on the technical, and the necessity for a liberal infusion of ideals. However great may be the need of intensive technical training in the immediate problems of the war, the reconstruction will require vision and a generous recognition of the claims of the spirit. One of the most far-reaching of the profounder psychological causes of the war is the wholehearted adoption by Germany of a crassly materialistic philosophy, which has over-fed her body and impoverished her spirit. She has sold man's birthright of a soul for a mess of the pottage of efficiency. Matthew Arnold has written, "I hate all over-preponderance of single elements." Contemporary Germany is looked upon as a thing monstrous and abhorrent because she exhibits an over-preponderance of material efficiency going hand in hand with an atrophied moral conscience. Yet there are those who, fascinated by her near-success, and gifted with more enthusiasm than vision, cry out in one and the same breath that this must not be endured in an adversary, and that the plain lesson to this country is to go and do likewise. The nation has entered upon war as a protest against an over-preponderance of materialism. Would it not be a stroke of cruel and bitter irony if the accomplishment of its purpose were at the expense of embracing the very menace it has set out to abolish?

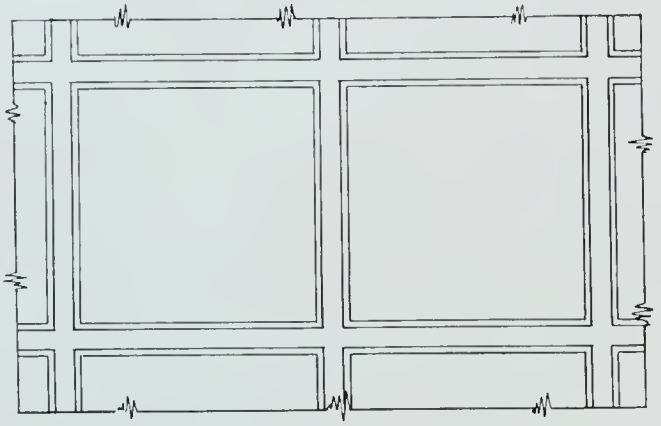
IRVING F. MORROW.

The Hallidie Building

WILLIS POLK & CO., Architects

By IRVING F. MORROW

ALTHOUGH the general public habitually accepts its architecture with the same passive resignation with which it accepts its weather or its comic supplements, yet, as a storm unusually severe or a comic feature which really happens to be funny will sometimes raise weather or comic supplements into subjects of public discussion, so now and then a building arises in our midst which is sufficiently unusual to set the man in the street to talking about architecture. The most recent example, as well as one of the best, of this architecture calculated to arouse active public interest is the Hallidie



Elevation

Building, lately completed by Willis Polk & Co. for the Regents of the University of California, as a commercial investment.

The following notes, quoted from a statement furnished by the architects, will prove of interest to readers.

"With regard to the building, it might be of interest to record in your journal the following facts:

"First: Distinction might be claimed for it as a successful commercial enterprise. Its final cost exceeded by only one-tenth of one per cent the original appropriation. The net extra cost, exclusive of tenants' requirements (for which the tenants pay interest) was less than $250.00

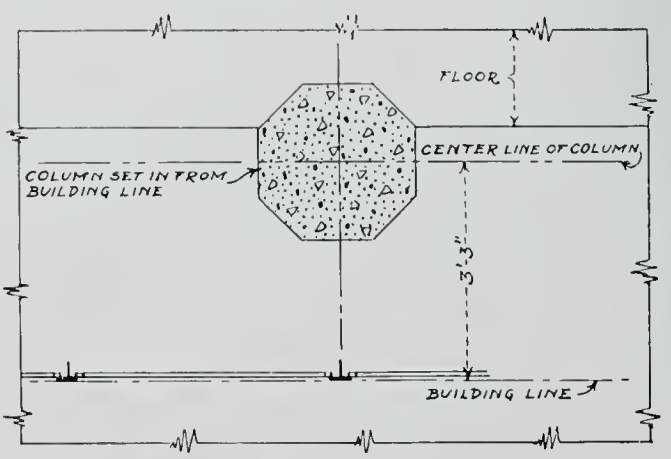
"Second: From the beginning of construction to occupancy less than six months transpired. This fact, while not remarkable in normal times, is creditable under conditions that exist at the present time. There were to be met certain theoretical conditions comprising the hign cost of material and the scarcity of labor that is now popularly supposed to exist—these obstacles fortunately did not prove to be insuperable.

"Third: This building has variously been dubbed "The Daylight Building," "The Frontless Building," "The Camouflage Building," "The Chinese Josh House," etc., etc. As a matter of fact with the exception of the treatment of its street front it is not an extraordinary building. It is well constructed, in fact, if anything it is over-constructed. In an ordinary commercial enterprise it would be more than likely that it could have been more economically built, but in deference to the advisors of the University and in compliance with the demands of the Board of Public Works, elements were accepted that have produced more than requisite strength in construction. Therefore, we will take it for granted that it is one of the safest and strongest buildings ever built, yet, because its front is practically 100% glass, it has the semblance in the public eye of being a dangerous and a fragile structure. The popular query is, "what will happen in an earthquake? What will become of the mass of glass?" No pane of glass in this front is more than half the average size of most of the glass in most of the buildings in all the world. Many other queries have arisen but, like the query as to whether an iron ship would float or sink, or as to whether or not a concrete ship of stone was not a pure fallacy, these queries may safely be charged to the proverbial incredulity of mankind which will not willingly accept innovations. This building is probably the first entire glass fronted building ever constructed. Vienna, Paris, London, Chicago, New York and Quebec, Canada, have, ever since the perfection of structural steel skeleton and reinforced concrete forms of construction, essayed to give agreeable expression to this new type of architectural design.

"Conservative judgement has, in caution, camouflaged its desire by clothing such steel skeletons or concrete frames in a semblance of masonry—either stone, brick or terra cotta—but with creditable patience has awaited for a successful experiment along the lines of true simplicity— lines upon which all enduring forms of art must ever be founded. It should not be claimed for the Hallidie Building that this experiment, however bold, is in any sense successful but it is certainly an innovation and its chief distinction, if it has any distinction at all, probably rests upon the fact that it is the first building ever constructed with an entire glass front.

"Incidentally modern building conditions demand fire-escapes; in most buildings up to date fire escapes have been grudgingly accepted by their designers and have seldom, if ever, been successfully treated. In most instances, while they are frankly utilitarian, they are nothing less than a disfigurement—in this building they have been accepted as a part of the problem and have been treated as a part of the artistic composition of the design.

"Finally, the color treatment of this building has been the occasion of wide-spread discussion and no apologies



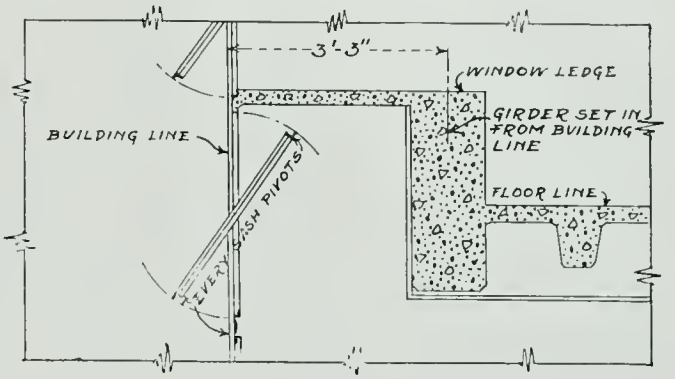
Plan

for it are offered. It being a building belonging to the University of California, a blue and gold scheme naturally suggested itself. It also being solely constructed as a commercial investment building, a successful handling of a blue and gold scheme was not within the confines of a limited commercial appropriation. Give a good workman dull tools, he cannot do good work—give a poor workman sharp tools, he cannot do good work; but, give a good workman sharp tools, he must do good work or lose his job."

Without wishing to detract from the novelty of the Hallidie Building as an innovation in Western, or even in American practice, we are inclined to question the accuracy of the statement that it is the first building to be constructed with a front entirely of glass. We have not attempted to look up statistics nor even to determine if such are available; but we seem to remember at least one large department store in Paris, the Bazar de la Rue de Rennes, which consists uniquely of steel columns and floor spandrils, all reduced to a structural minimum and not even fireproofed, with intervening spaces occupied entirely by glass. We will, however, give to the architects of the present building credit for one innovation. In all attempts at partial or complete glass design which have come to our knowledge, the glass fills the space between essential structural members. It has remained for them to erect their structure behind the building line, and hang the entire glass facade as a decorative screen in front of the structure. The result is the reduction of the visible metal members to no more than a cross ruling of lines, save where metallic ornament is designedly added. The difference in principle (the nearest analogy we recall is Louis H. Sullivan's treatment of the ground floor of the Prudential Building in Buffalo) is significant.

The value of the building as architecture, however, is in no way dependent upon who thought of it first, or what number it occupies in the chronological series of buildings designed upon a similar principle. In general we should say that the conception is valid and the result highly interesting, even if the treatment at points may be open to criticism. The scale of the metal work errs on the side of coarseness. This is particularly true of the crowning cheneau, which is excessively unmetallic in character; it is also true, though to a smaller degree, of the lower horizontal decorative bands, where a tendency to lumpiness is emphasized by comparison with the real delicacy of the surmounting iron rails. For the well considered and by no means unattractive handling of fire escapes we should be thankful. This is really one of the most original and most pregnant innovations in the building. The design of the entrance, on the other hand, is a meagre and unrelated intrusion, entirely inadequate; it seems the more inexplicable in view of the ingenuity and evident verve which went into other parts of the design.

For the color the architects tell us that no apology is forthcoming, and, as a matter of fact, we do not see why one should be necessary. The concluding remarks above quoted evidently allude to the fact that they of necessity



Section

used a tarnishable gold paint, and imply a challenge to supply them with proper materials and see what they can accomplish. For a demonstration of the immeasurable superiority of gold leaf one need go no further than the dome of the City Hall. But while we regret the greenish, muddy tarnish which the paint only too rapidly acquires, we are unable to agree with the numerous critics who condemn the color scheme of the building as lacking in propriety or attractiveness. The life and variety thus introduced into the dullness of the city street is an asset of no mean value. Barring the unfortunate tarnish on the gold, which accentuates the above-mentioned lumpiness of the detail to which it is applied, the scheme is one of considerable restraint and delicacy, despite the brilliance and unusualness of the component colors. In certain lights the echo of the lively blue of the metal lines by the broad areas of paler blue reflected from the sky in the innumerable glass panes is an effect of great subtlety and beauty. Seen at a sharp angle this same multitude of reflections lends vivacity to the ordinary monotony of street perspective.

Our most serious question would be, How can the occupants endure the quantity of light which must inundate the interior?

On Mural Decoration and the Easel Picture

By RAY BOYNTON

TO any one studying critically any current exhibition of paintings there must be evident an element of confusion. In a large amount of the work no evidence of a definite direction presents itself, and even though there is no lack of seriousness, one wonders often if the artist is guided by a severe and exacting discipline of self-criticism based on a definite point of view toward his work as a craft or merely by the dictates of style.

The lack of discipline in modern art is a thing that, I think, cannot well be overlooked and I wonder if it is not even regarded as a virtue. By discipline, I mean a genuine standard of critical judgment, a point of view that can apply without vagueness to any work of art of any period, Oriental or Occidental, from a porcelain to a fresco, from a rug to a fan. And being pretty consistently without any such discipline, for critical standards we take refuge in schools and pride ourselves on modernism, and damn or praise by the latest period or the one just preceding it. That, I consider, is largely because of the fact that the easel picture has assumed a place out of all proportion to its importance and tried to hoodwink us into believing it the heir of all the ages.

Italian Courtyard in the Hill Tolerton Print Rooms, before the fountain received its decoration
WM. C HAYS, Architect

Fresco by Ray Boynton on the Estate of E. H. Furman, Los Altos, California
This fountain was designed throughout and constructed by the artist in cement, glazed tile, and fresco. The motif was furnished by the Chinese bronze basin. The surroundings allowed a great amount of freedom in every way
The fresco process given by Cennino Cennini was followed by the artist

The easel picture, because it is a sort of independent creative effort, without tie or responsibility to architecture or anything structural or permanent outside itself, is a kind of law unto itself. It has given us the exhibition canvas; that work which has so little contact with any other human activity, but which clamors so successfully to be seen that it has almost no place to hang except in the exhibition gallery. So dominating has this idea become that any exercise of artistic restraint in painting is likely to be looked upon as a sign of weakness.

I once heard a man who was a connoisseur and a lover of fine rugs and an authority upon them, say that a rug should have a firm and well-

thought-out design that was consistent and harmonious both in form and color—after that it was a question of material and workmanship; but if it did not have those qualities it was not a work of art, anyhow. This might very well have been said about painting or book illumination or porcelain. Ernest Fenollosa, in the introduction to his "Epochs of Chinese and Japanese Art," makes a similar statement, more general and more compact, when he says, "All art is harmonious spacing under special technical conditions that vary." This seems to me a pronouncement on craftsmanship in art wide enough in its scope and exact enough to apply minutely to any visual art of which I can conceive. It has the virtue that it lays no constraint on the individual conception of the artist, but only presumes to judge how well he has mastered his materials and evolved his conception. It clearly marks design the touchstone of all great art—design, in its abstract beauty, when mastered, the most perfect vehicle of the imagination, and infinite in its possible variety. I maintain that any man or any period or any kind of work that has accomplished this nobly is still a living influence in Art and to be inspired by such achievement is no reproach to any living artist. Yet the preoccupation of artists with the easel picture before them has obscured their vision in this field to the point where style appears to be a thing sought for before great design, and the influence of anything but the latest school is questioned, and the matter of painting in a high or a low key is discussed as if it were important in itself. This is inevitable, I think, in a field where there is no restraining influence and no exacting discipline, such as, for instance, architecture imposes upon mural decoration. And, I believe design exercises its greatest ingenuity and achieves its greatest triumphs when it is frankly decorative, when it consciously coordinates with some other effort, gathering up an accumulating force from its surroundings, and remains self-contained. It is a field of effort where the necessity of taste cannot well be denied and the lack of it cannot well be hid, for the architecture of a room may not be altered very easily and the work is expected to remain in one place. I believe a good test of the work of any artist is his ability to coordinate his work with its surroundings.

I do not mean even to suggest that artists should abandon easel painting—far from it. It is a field that has produced great art and will continue to produce it. It aspires to a unique place of independence akin to poetry and music, and that is a high ambition. But the easel picture is only a little brother to mural decoration, and the vital design of painting has come to it from that source; and easel painting would profit immensely by the contact if it went back often to this source for new strength. If artists would discipline their minds to think in terms of mural decoration, they would find that good decoration is not conceived in the terms that pass current in a large percentage of the pictures that hang in the exhibitions. To appreciate the difference fully, one should try painting directly on a wall in a rather exacting architectural setting. The result would be illuminating to the artist.

Mural Painting by Ray Boynton

This decoration was applied to a fountain already constructed in the Italian courtyard of the Hill Tolerton Print Rooms. The surrounding architecture was an important consideration

Not everybody will paint mural decorations, but I think that all artists have an ambition to do so; and if they would discipline themselves with that kind of thinking, it would react well upon their work. I believe they would find their critical standards simpler and more exacting and painting would free itself from a great deal that is non-essential, and the evidence of a general direction in their work would be more apparent. It might be a prospect that architects would welcome.

Editorial Note.—"Mural painting" is an expression which is apt to connote monumental subjects spread over vast wall surfaces or vaults too lofty to be comfortably viewed. The two examples of Mr. Boynton's work presented herewith serve as a reminder that it is not incompatible with restricted dimensions, modest scale, and intimate feeling. In each case the size is considerably under that of many an exhibition picture, but the conception is purely decorative. The frequent employment of decorations which are personal in location, scale, and treatment may prove of more value to the cause of art than the use of paintings in the "grand style" in public buildings, of necessity at once rarer and more removed.

Current Notes and Comments

THE BUILDING MATERIAL EXHIBIT

A long felt want in the building line is a concentrated exhibit of the innumerable methods and materials which now are incorporated in the modern building, to give to the owner, architect and builder an opportunity properly to decide as to the adaptability of a particular material for his purpose. Such an exhibit to be valuable to all, should be complete, up to date, and reliable data available at a moment's notice, involving an amount of work which will take some time to perfect and systematize in proper working order.

The architect, who now receives so much mail costly to the advertiser, and oftimes, without even cursory examination, relegates the same to the waste basket; or worse than that sinks it into the inpenetrable mass of other advertising, impossible of resurrection at the time when most needed, will appreciate the innovation.

To have a library of catalogues, and the material samples close at hand, where form, substance and color can be considered at leisure, and where a client may comfortably peruse the suggestions for his building without being dragged all over town, and where different suggestions may be assembled and shown, is most valuable to a busy man, be he owner, architect or builder.

This movement is especially creditable at the present time during the lull before the storm of activity, which is bound to come when conditions show signs of having capital go back into normal channels.

By this concentration of effort the advertiser may be saved an untold amount of costly, useless matter, the architect may be saved the space, time and expense of filing and indexing, the builder may not have the excuse of "Don't know it and can't get it," and the owner can more readily see what he is getting before he gets it.

For the above reasons the San Francisco Chapter of the American Institute of Architects has cheerfully endorsed The Building Material Exhibit as a more efficient method of handling samples, this bugbear of an architect's office, and have asked its members to co-operate toward making the exhibit complete and of the most benefit to the building material industries and those they wish to serve.

J. W. DOLLIVER.

IN REGARD TO MORTAR

A brochure of very attractive appearance, entitled "Non-Staining Mortar for Pointing, Setting, and Backing," appears over the name of the Atlas Portland Cement Company. Though issued ostensibly for advertising purposes, it contains valuable general information in concise form. In addition to a long catalogue of buildings in which Atlas-White Portland Cement has been used, and statistics relative to its physical and chemical properties, the contents include a short discussion of the essential requirements of mortar, detailed specifications for backing, setting, and pointing stone, marble, brick, and tile, and explanations of the reasons for the practices advocated. The booklet is excellently illustrated with photographs of a surprising number of important structures in which Atlas-White Portland Cement has been used,—in fact, it almost constitutes a select portfolio of recent work of the foremost architects of the country. In this respect it is in striking contrast with many current examples of building-material advertising, which frequently presume to enforce the distinction of the product by exhibiting the architectural mediocrity of the buildings in which it has been used. Copies of this brochure may be obtained upon request from the Atlas Portland Cement Company, 30 Broad St., New York City.

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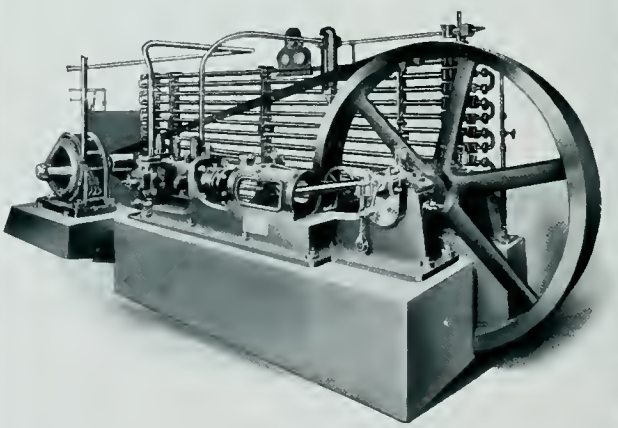

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WILLIS POLK & CO., Architects
4. Santa Fe Building . . . San Francisco
WOOD & SIMPSON, Architects
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Minutes of Southern California Chapter

The one hundred and eighteenth regular meeting of the Southern California Chapter, A. I. A., was held at Jahnke's Tavern, Tuesday, June the eleventh, 1918.

The meeting was called to order by the President, Mr. J. J. Backus, at 7:45 p.m., the following members being present: J. J. Backus, C. H. Brown, G. E. Bergstrom, P. A. Eisen, Theodore Eisen, R. C. Farrell, J. C. Hillman, A. C. Martin, Octavius Morgan, O. W. Morgan, S. T. Norton, H. F. Withey, Wm. H. Willson.

As guests of the Chapter were present: Mr. Mark Cohn, Chairman of the State Bureau of Housing and Immigration; Mr. J. E. Kienle, Secretary of the Los Angeles Housing Commission, and Mr. John Bowler, of the Southwest Builder and Contractor.

Minutes of the 117th meeting were read and approved.

The Secretary reported receiving a check of $215.20 from Mr. D. E. Waid, Treasurer of the Institute, the same being a refund on the delegate's expenses to the Convention at Philadelphia.

Under "Committee Reports," the Secretary read a communication from Mr. Elmer Grey, outlining briefly a plan of holding an architectural exhibition in connection with the California Liberty Fair, from the first to the fifteenth of September, supplemented with the request that the President appoint a new member to the Educational Committee to take the place of Mr. D. C. Allison, who is leaving for Government service in France, also asking for the appointment of a Jury of Award for said Exhibition.

Under "Communications" the following were read:

From Mr. William Stanley Parker, Secretary of the Institute, announcing the election of Mr. William L. Woolett to membership in the Institute, and his assignment to the Southern California Chapter.

From Mr. George A. Damon, Secretary of the Technical Societies, announcing a meeting of the Joint Committee of the Technical Societies for Wednesday, June 12th, with the request that the President and Chapter members of the Joint Committee be present, for the consideration of a program for the summer.

From the City Council of Hemet, California, expressing their appreciation of the Chapter's assistance in preparing and drafting their new city Building Ordinances.

Under "Unfinished Business" the Secretary presented a Resolution condemning the practice of dividing commissions with realty brokers, as it may exist. It was moved by Mr. Morgan, seconded by Mr. Martin and unanimously carried that the same be adopted and a copy of the Resolution be appended to the Minutes of the meeting.

Under "Papers and Discussions,' President Backus read a detailed report of his trip to the Philadelphia Convention, at the conclusion of which Mr. Morgan highly commended the report, and moved that a vote of thanks be extended to Mr. Bakus. This was seconded by Mr. Hillman and unanimously carried.

Mr. Mark Cohn was then introduced and spoke at some length relative to the State Housing Laws, suggesting that if the Chapter felt that any of the provisions of the laws were not as they should be, that recommended revisions be submitted to the Housing Commission.

Minutes of Oregon Chapter

MARCH 21, 1918

Meeting held at Chamber of Commerce, Portland, Oregon.

Members present: President Jacobberger, Lawrence, Holford, Webber, Lazarus, Schhacht, Naramore, Doyle, Johnson and Smith.

Motion made by Lawrence, second by Holford, that a committee be appointed to meet the various engineering societies at regular intervals for discussion of matters affecting both professions. Motion carried. The President then appointed Doyle, Naramore and Holford to form this committee.

Motion made by Doyle, seconded by Johnson, to invite Sutton and Whitney to become members of the Chapter. The motion was carried unanimously.

Motion by Naramore, seconded by Johnson, that President Jacobberger be designated as a delegate to the Convention to be held on April 24th—and if unable to attend, to appoint a proxy. Motion carried.

ALFRED H. SMITH, Secretary.

JUNE 20, 1918

Meeting held at Chamber of Commerce, Portland, Oregon.

Meeting called to order by President Jacobberger, with the following members present: Whitehouse, Johnson, Schacht, Williams, Naramore, Lawrence and Smith.

Letter soliciting funds for the "Professional Classes War Relief of America" was read and ordered laid on the table.

Motion made by Williams, seconded by Schacht, that the Treasurer be instructed to pay the sum of $25 to the School of Architecture at Eugene for prizes for 1918, as recommended by the Educational Committee in letter of March 29, 1918.

Motion by Johnson, seconded by Whitehouse, that the letter from the Illinois Chapter of May 23rd, re their resolution on advertising and signing of buildings, be laid on the table until next meeting.

The letter from C. Grant LaFarge re the "Professional Classes War Relief of America" was ordered laid on the table.

Motion by Lawrence, seconded by Whitehouse, that the Chapter endorse and approve a Housing Code subject to approval by a Special Committee of the Chapter.

Motion by Naramore, seconded by Smith, that the President appoint a Special Committee with power to act on the proposed Housing Code as submitted by the Housing Association.

Motion by Lawrence, seconded by Whitehouse, that the Chapter recommend a Board of Appeal to the proposed Housing Code.

Motion by Lawrence, seconded by Johnson, that a Special Committee be appointed by the President to consider all matters pertaining to Housing and said Committee to report in two weeks a mode of procedure for the Chapter's consideration.

ALFRED H. SMITH, Secretary.

Whereas, The solution of the Housing problem, as applied to the war workers, has been recognized, by all the various nations, as a vital part of their war program; and

Whereas, The United States, appreciating the need of efficient and contented workmen to speed up production of war supplies and ships has appropriated $110,000,000 for the purpose of building quarters for war workers; and

Whereas, Statistics prove that Portland is confronted with a serious shortage of desirable quarters for workers in the shipyards and other war activities, thereby jeopardizing the fulfillment of her duties to the Nation in this crisis; and

Whereas, The Oregon Chapter of the American Institute of Architects is, from the experiences of its members, keenly aware of the difficulties existing to solve this serious matter, in the way of increased building costs, in securing skilled labor and materials; and

Whereas, The Oregon Chapter of the American Institute of Architects is desirous of doing all in its power to aid the Government at this critical time; therefore,

Be it Resolved, That the Oregon Chapter of the American Institute of Architects hereby offers its services in an advisory capacity, without cost, during the war, to all Portland organizations, interested in the Housing problem, and be it further

Resolved, That the Housing Committee of the Oregon Chapter of the American Institute of Architects, be hereby instructed to gather and present all information at its disposal, to the public and to any Portland organization asking for professional advice on Housing matters. Should actual maps, layouts, and plans, be needed at the minimum cost for the success of any approved Housing venture, then the above committee is hereby instructed to report back to the Chapter, which will attempt to secure such maps, layouts, and plans, at net cost of production; and be it further

Resolved, That this offer holds good to all other committees in the State of Oregon and to environs of Portland.

For the Oregon Chapter of the American Institute of Architects,

By JOS. JACOBBERGER, President,
and ALFRED H. SMITH, Secretary.

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Dear Sir: Referring to your recent letter asking as to my opinion of the Perrenial Shades installed in our general office building.

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It has always been against my judgment to give testimonials such as this, but in this case I feel the installation has been so satisfactory that I would like to furnish you with this testimonial.

Very truly yours, J. M. HANNAFORD.

ARCHITECTS' REFERENCE INDEX

Containing List of Manufacturers, Their Representatives and Serviceable Literature

ASBESTOS BUILDING LUMBER
Keasbey & Mattison Co., Ambler, Pa.
J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Illustrated and descriptive pamphlet, 7¾x10¾, 8 pp. Pamphlet, 4x8½, 8 pp. Price list, 3½x6¼. Literature of various sizes, samples, etc. "Service Sheets," working drawings, details of application, size 16½x21½.

ASBESTOS CORRUGATED SHEATHING
Keasbey & Mattison Co., Ambler, Pa.
J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Descriptive catalogue, 5¼x8¼, 24 pp. Catalogue of details and specifications for application of roofing and siding, size 8½x11, 40 pp. Lists of buildings covered. Price lists, 3½x6¼, 6 pp.; and literature of various sizes, samples, etc. "Service Sheets," working drawings, details of application, size 16½x21½.

ASBESTOS SHINGLES
Keasbey & Mattison Co., Ambler, Pa.
J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Illustrated catalogue. Detail specifications, 8x10, 20 pp. Descriptive catalogue, various types of roof covering, 5¼x8¼. Various pamphlets, 3¾x6. Current price lists, 3½x6¼, 6 pp. Lists of buildings and literature, various sizes, samples, etc. "Service Sheets," working drawings. Detail of application, size 16½x21½.

BARS, REINFORCING
Pacific Coast Steel Co., Rialto Building, San Francisco, Cal.
Square, round and corrugated.

BRICK, ENAMELED
Los Angeles Pressed Brick Co., Frost Bldg., Los Angeles, Cal.
United Materials Co., 5 Crossley Bldg., San Francisco, Cal.
Catalogue on "Enameled Brick for Facing," illustrating and listing names of prominent buildings finished with Enameled Brick. 5x7½, 48 pp.

BRICK, FIRE AND REFRACTORIES
Gladding, McBean & Company, Crocker Bldg., San Francisco, Cal.
Los Angeles Office, Trust and Savings Bldg.
Price list No. 45 on Clay Products. 5x7½ in. 70 pages, containing illustrations.
Los Angeles Pressed Brick Co., Frost Bldg., Los Angeles, Cal.
United Materials Co., 5 Crossley Bldg., San Francisco, Cal.
Descriptive catalogue, 5x7, 54 pp.
Simons Brick Company, 125 West Third Street, Los Angeles, Cal.

BRICK, PRESSED
Gladding, McBean & Company, Crocker Bldg., San Francisco, Cal.
Los Angeles Office, Trust and Savings Bldg.
Price list No. 45 on Clay Products. 5x7½ in. 70 pages, containing illustrations.
Los Angeles Pressed Brick Co., Frost Bldg., Los Angeles, Cal.
United Materials Co., 5 Crossley Bldg., San Francisco, Cal.
Moulded and Ornamental Pressed Brick. General catalogue. 5x7, 54 pp.
Simons Brick Company, 125 West Third Street, Los Angeles, Cal.

CEMENT, PORTLAND
Atlas Portland Cement Company, The, 30 Broad St., New York.
(Western Representatives, see advertisement.)
Building a Bungalow. Addressed to owners. Booklet 8x10½ 14 pp, with 4 insert plates.
Choosing the Garage. Describing actual construction. Booklet. 8x10½ in. 26 pp.
"Color Tones in Stucco," a booklet of 20 pages and cover, in full colors. Size 8½x11 in.
Commercial Garages. With construction notes and architectural treatment. Booklet 8x10½ in. 12 pp.
Early Stucco Houses. With modern stucco specifications. Booklet. 8½x11 in. 24 pp.
Guide to Good Stucco. Addressed to contractors. Booklet. 8½x11. 20 pp.
Handbook and Treatise. Concrete in factory construction. 6½x8¾ in. 250 pp.
Information for Home Builders. Addressed to owners. Booklet. 8½x10¾. With 8 insert plates.
Santa Cruz Portland Cement Co., Crocker Bldg., San Francisco.
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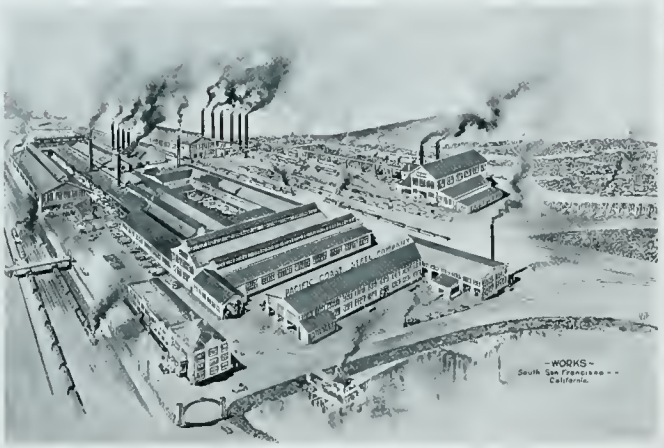

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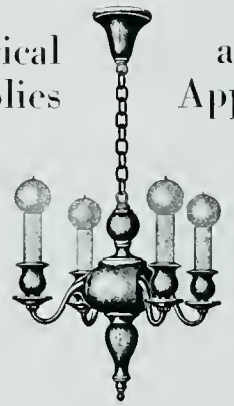

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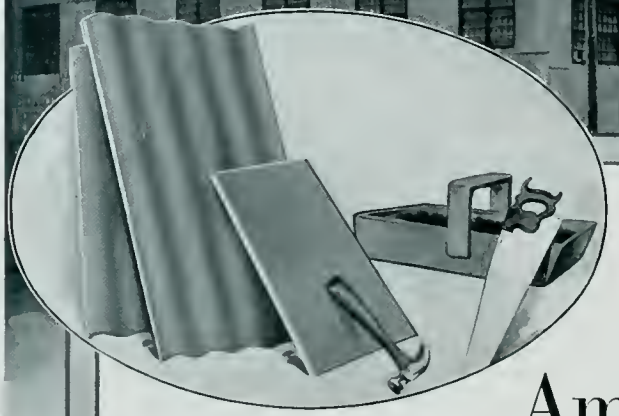

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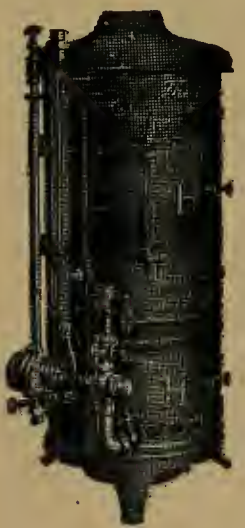

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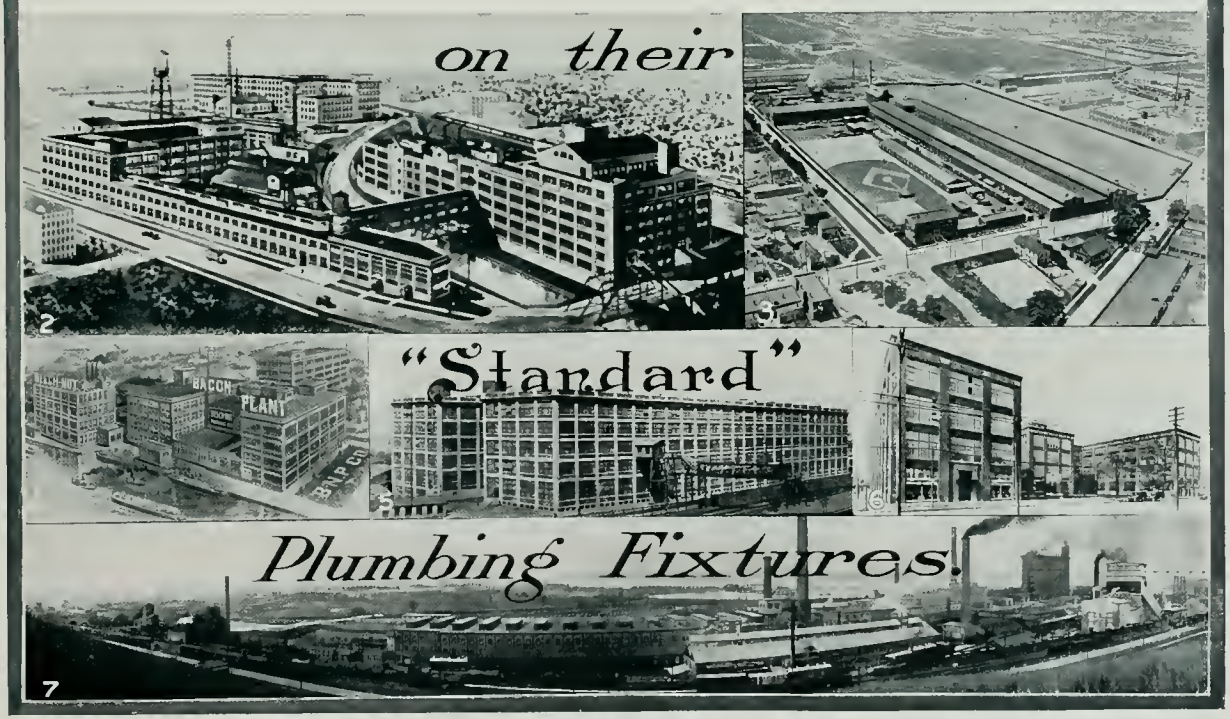

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ADELAIDE CURTIS - Beacon, N. Y.
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EDITOR

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¶ Published in the interest of the architectural profession, on the first of each month, at 245 Mission Street, San Francisco. Entered as second class matter August 4, 1911. Subscription price in the United States and possessions, $5.00 a year; foreign and Canadian, $6.00 a year. Single copies, $1.00.

¶ Changes in, or copy for new advertisements, must reach the office of publication not later than the fifteenth of the month preceding issue. Advertising rates and any other information will gladly be given on application.

¶ The editor will be pleased to consider contributions of interest to the profession. When payment for same is desired, this fact should be stated.

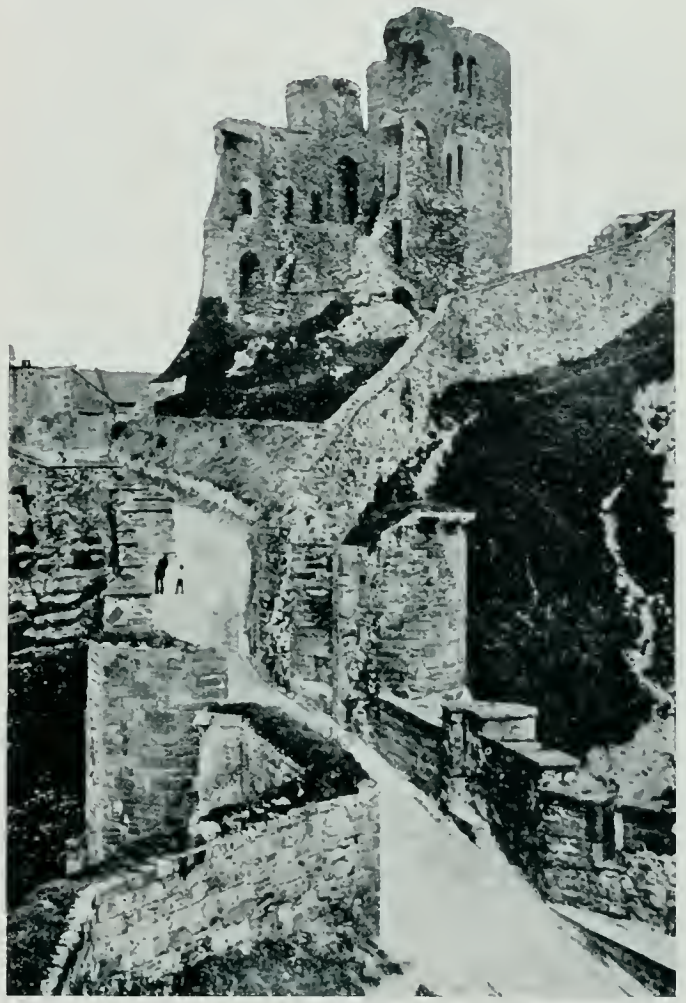
CHRIST CHURCH COLLEGE
WHITBY, ENGLAND

THE ARCHITECT
VOL. XVI SAN FRANCISCO, AUGUST, 1918 NO. 2

Historic Whitby

By ADELAIDE CURTISS

OXFORD CASTLE



SCARBOROUGH CASTLE

THE town of Whitby, so picturesquely built upon one of the lofty headlands of the rugged Yorkshire coast, is one of the most historic spots of ancient England. The very name of this old town, through its Danish termination "by," reveals its early origin. The many other villages of the "Danelagh," scattered along the northeastern shores of Britain, such as Ormesby, Scalby, Saxelby, Grimsby (the latter associated with the touching story of "Havelok the Dane"), Fotherby, Coningsby, Hunmanby, Normanby, and a number of others, give an excellent indication of the extent of the early Scandinavian conquests in the north of England, and the permanency of the Danish dominion.

Whitby is justly considered one of the "holy places" of early England, for here Caedmon, who represents the dawning of English poetry, sang "the beginning of created things." With all "a barbarian's vigour and sublimity," to use the words of Taine, the crude poetry of this early genius bursts forth:

"There had not here as yet, save cavern-shade, aught been; but this wide abyss stood deep and dim, strange to its Lord, idle and useless; on which looked with his eyes the King firm of mind, and beheld those places void of joys; saw the dark cloud lower in eternal night, swart under heaven, dark and waste, until this worldly creation through the word existed of the Glory-King.——The earth as yet was not green with grass; ocean covered, swart in eternal night, far and wide the dusky ways."

Still again: "In heaven art Thou, our aid and succour, resplendent with happiness. All things bow before Thee, before the glory of Thy Spirit. With one voice they call upon Christ; they all cry: Holy art Thou, King of the angels of heaven, our Lord! and Thy judgments are just and great; they reign for ever and in all places, in the

CHURCH STEPS, WHITBY

multitude of Thy works."

What wild and rugged verse, so truly, in that fierce age, "a voice crying in the wilderness!" Like some dim and unfamiliar message, it comes to us from that period that we call the Dark Ages, from a strange and far-distant past. This sombre and still half-understood era was, however, full of promise. "This restlessness, this feeling of the infinite and dark beyond, this sober, melancholy eloquence, were the harbingers of spiritual life.

The Benedictine monastery of Whitby, the ancient Streonshalh, so early famous through the name and the efficient labors here of St. Hilda, was established in 658 A.D. by the saint's father King Oswy of Northumbria. This chieftain was a brother of King Oswald, the protector of St. Aidan, the well-known story telling us that, in a battle with the heathen King Penda of Mercia, Oswy vowed that, if successful, he would dedicate his daughter Hilda, with a gift also of several manors, to the service of Holy Church. The royal abbess proved herself, by her subsequent life, to be a woman of consummate ability, the historian John Richard Green telling us, in picturesque language, that she "was a Northumbrian Deborah whose counsel was sought even by kings." St. Hilda, during whose rule Caedmon had so eloquently sung, was followed by Ethelfled, another abbess who also advanced the interests of this early church. In "Marmion" Sir Walter Scott says of these two famous women:

"Then Whitby's nuns exulting told
How to their house three barons bold
Must menial service do.—
In wrath for loss of sylvan game,
St. Hilda's priest he slew.—
They told how in their convent cell
A Saxon princess once did dwell,
The lovely Edelfled;
And how of thousand snakes each one
Was changed into a coil of stone
When holy Hilda pray'd.—
They told how sea-fowls' pinions fail
As over Whitby's towers they sail;
And sinking down, with flutterings faint,
They do their homage to the saint."

In 664 A.D. a great council was held at Whitby. Its object was to decide certain questions that were vexing the two parties of the early English church. The questions themselves—as to the fashion of the tonsure, and the time for celebrating Easter—seem trivial enough, but the final victory of the supporters of the Roman party meant a triumph of organization over disorganization and dismemberment. Green says again: "It was from such a chaos as this that England was saved by the victory of Rome in the Synod of Whitby. But the success of Wilfrid dispelled a yet greater danger. Had England clung to the Irish Church it must have remained spiritually isolated from the bulk of the western world. Fallen as Rome might be from its older greatness, it preserved the traditions of civilization, of letters and art and law. Its faith still served as a bond which held together the nations that sprang from the wreck of the empire. To fight against Rome was, as Wilfrid said, "to fight against the

EAST CLIFF, WHITBY

world.' To repulse Rome was to condemn England to isolation."

The famous seventh-century monastery of Streonshalh, where such stirring events once took place, has long ago disappeared, and today the lonely cliffs of Whitby hold only a moldering, though highly picturesque, ruin of the beautiful structure, which, from the eleventh to the fifteenth century, was gradually rising upon the site of the earlier and more famous abbey. Important as this second foundation was, the days of Whitby's glory had passed away forever, and after the Dissolution, the sacred edifice "was left to a lingering death." The splendid monastic buildings, so great in extent, were destroyed during the sixteenth century in order to construct a nobleman's residence, while time and tempest have broken down a part of the nave, the tower and finally the west front of the church itself. Strengthened in recent years, the ruins may be preserved for a few more decades, but wind and storm wreak their pleasure today upon this exposed spot.

For a long period, however, previous to the construction of the second monastery, it had lain in utter ruin and desolation, and perhaps Whitby Abbey had never been able fully to recover from the fearful visitation from which it had suffered so soon after its early prosperity. One writer says of this troubled period: "The Danes who sacked Lindisfarne in 793 stopped short of Whitby, but in 867 another invasion swept over the land and Whitby was as utterly destroyed as its sister monastery on Holy Island. The relics of St. Hilda were removed to Glastonbury, as those of St. Cuthbert had been to Durham, and for two hundred years the sea winds swept sheer across the blasted cliffs, unbroken by buttress, wall, or tower, unmingled with the sound of any bell."

Of the present ruin, as it stands today in its melancholy isolation and decay, Mr. R. A. Cram, the author of "The Ruined Abbeys of Great Britain," writes: "The great church, one of the many glories of mediæval England, was left to crumble slowly into dust. Perhaps this very fact is responsible for the atmosphere of gloom that surrounds the gaunt ruins, the evidences of slow dissolution so terribly evident and even now in process of accomplishment. It is a wild and barren height, this cliff over the North Sea, and the racked ruins, trembling under the fierce onslaughts of the wind, the whirl of sand dashed upward from the shingle, two hundred and fifty feet below, the screaming of seabirds as they slide down the wind through the blank lancets of clerestory and transepts, the black shadow under the single choir aisle, the heaped-up piles of shattered masonry, even the long and barren reaches of harsh moor stretching downward to the east, all combine to create an atmosphere of forlorn depression that is quite unusual among the abbeys, and quite unjustified by recorded history."

OLDEST HOUSE, OXFORD

WHITBY FROM SPITAL

The town of Whitby has a distinctive charm of its own. England has many beautiful little villages, which, ancient and honorable, possess records of real majesty, but this little town of Whitby, Whitteby (the White Town), the Domesday Book has it, seems, because of its singularly noble story, especially venerable. Here one cannot forget the past. The wildly

ST. MARY'S CHURCH FROM THE ABBEY, WHITBY

picturesque beauty of the town and its surroundings is peculiar to the Yorkshire coast, a region where so much of England's early history has been enacted. One writer in a charming essay, descriptive of this locality, tells us of such neighboring towns as "Stainton Wall, from the hill of which the Knights of St. John used to ring a bell or blow a horn every evening to direct travellers to their hospital, and Robin Hood's Town, which is propped up against a precipice with some of its houses overhanging the sea," while the same writer, in describing the savage beauty of the neighboring Castle of Scarborough, towering upon its dizzy height of cliff, says of picturesque Whitby and the view of the little town from East Cliff, at the foot of which the Esk river flows into the German Ocean:—

"Looking to the east and north, the embattled cliffs and the restless sea fill the view. Looking to the west, we see the river cleaving the valley, with the town built on both sides of it. The two characterizing colors of the picture are red and blue. One house rises above another, apparently supported by the cornice of that below it; the floor of one seems to be the roof of the other. The roofs are peaked and gabled and dormer-windowed, with tall chimney-pots shooting up from them; nearly all of them are sheathed with crimson tiles, which, with the lazy blue smoke drifting over them, are the things that give color to every picture of Whitby. The color and architecture are both foreign. The cold gray of the usual English village on the coast is substituted by a delightful warmth and richness. Leading down from the summit of the East Cliff to the town is a curving flight of one hundred and ninety six well-worn stone steps, up which the worshippers come on Sunday to the old parish church which stands at the head of the cliff, surrounded by a full crop of gravestones, with the sea behind it." This Early Norman church, to which the writer refers, although much refurbished, is still picturesque, adding greatly to the charm of the old-world beauty of Whitby.

It is almost impossible to realize the extreme longevity of some of the English villages. These towns have become a part of Nature itself, their roads and winding lanes were often laid out in Roman or even pre-Roman times, the sturdy houses have sheltered so many successive generations, while the very customs and language of the common people point back to long-past ages. Hawthorne once wrote, after exquisitely describing a little old English village, that he despaired of conveying to the reader a realizing sense of the "hoary antiquity" of some of the English towns. But more than mere antiquity is necessary to render a town truly venerable. Even more majestic than the long records, reaching so far back into the past, of which many a town can boast, is the meaning of the great deeds themselves which have taken place there. In the wisdom of God certain places seem to have been selected during the progress of Christianity as backgrounds for events which shall

ST MARY'S CHURCH AND CAEDMON'S CROSS, WHITBY

WEST NAVE OF THE ABBEY WHITBY

determine the world's history. Rome; mediæval Paris; Worms and Speyer in the Reformation period;—what a part they have played and how singularly suited to the purpose of extending the cause of Christianity such cities have been!

In like manner Whitby, so insignificant as regards the mere size of the town today, has a priceless value as a bulwark of early English civilization. Clinging to its bleak and rugged cliff, beaten, as it then was, no less by wind and wave, by the fierce storms and tempests of the natural world than by the struggles of the spiritual,—torn and rent by schism and buffeted by cruelest paganism, — Whitby Abbey, representing so nobly the Christian Church of that far-away time, fought its battle and won its victory. As symbolizing the rise of one of the fairest stars of early English literature, and also the dawning of Christianity in England, this venerable sanctuary enkindled a light that has since never been extinguished.

BOULBY BANK, WHITBY

WHITBY ABBEY
As it appeared before the recent German bombardment

But Whitby's share in forwarding England's welfare as a nation must also never be forgotten. The present Yorkshire (in which Whitby lies), the neighboring counties of Durham and Northumberland, with also a part of southern Scotland, represented the ancient kingdoms of Bernicia and Deira, and from these kingdoms arose such men as Caedmon, the Venerable Bede, Cynewulf, and others, who aided in lifting Britain out of darkness and ignorance, and thus hastening forward the cause of European civilization. One writer says of these men: "To their influence, and to the learned—which succeeded the warlike—epoch of Northumberland during the next century down to the death of Alcuin of York in 804, may be ascribed the fact that, while Saxon Wessex became the dominant state, the language and the land south of the Forth received from the Angles the name of English and England."

During the present terrible war Whitby Abbey has marked another epoch. In its hoary old age it must become a target for German hatred, and what Time and the raging storms were loth to destroy must fall before man's fury. But if the ancient buildings themselves must be laid low the part they have played in England's history can never be forgotten, and the story of brave Whitby Abbey, on its rocky height, will live forever.

List of Architects and Draughtsmen in Military Service

San Francisco Chapter

Harris C. Allen	Franklin T. Georgeson	B. S. Hirschfeld	Ernest L. Norberg	Walter D. Reed
E. P. Antonovich	John Davis Hatch	James T. Narbett	Sidney B. Newsom	W. O. Raiguel
John A. Baur				

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Herbert Brown	Joseph Cahen	Gordon Raeside	C. V. Calvert	Howard McMullin
Clement Ambros	Wallace Stephen	Albert W. Burgren	J. Bettencourt	E. Boldeman
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Arthur Evans	Robert Lockwood	Emmet G. Martin	James Hanenstein	Russell Ray
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Eugene Weston	Jos. Fiel	Sam W. Williams	Carl Sjoberg	George J. Hodenpyl, Jr.
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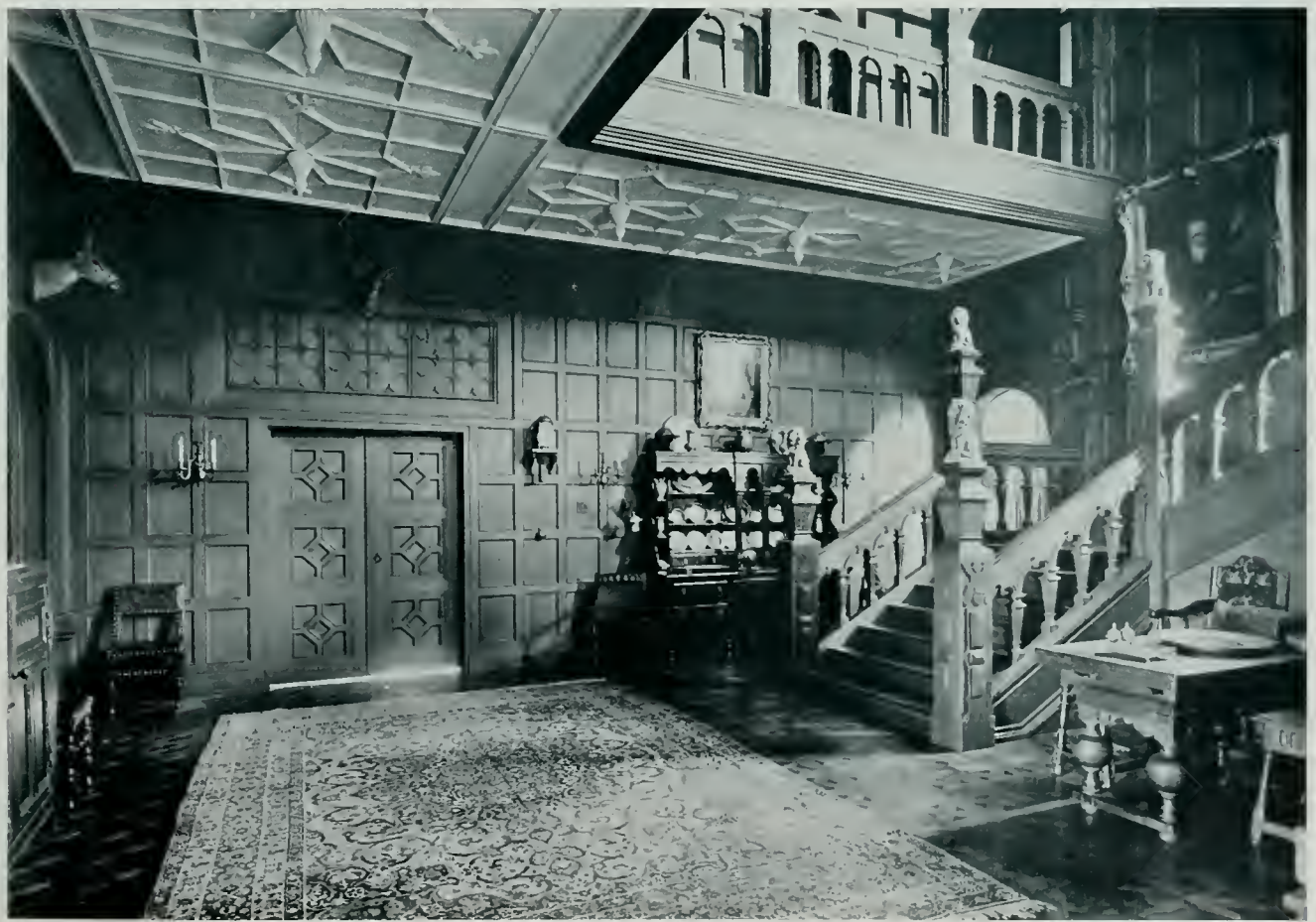
J. Andre Fouilhoux	Chester Truichell	L. C. Rosenberg	H. W. Ward	O. Lyllenberg
Harold Doty	Jay Keller	Artie Marshall	Fred A. Fritsch	Glenn Stanton
Edwin Merrill	T. Turner	Earl Heitschmidt	Eyler Brown	

NORTH FRONT

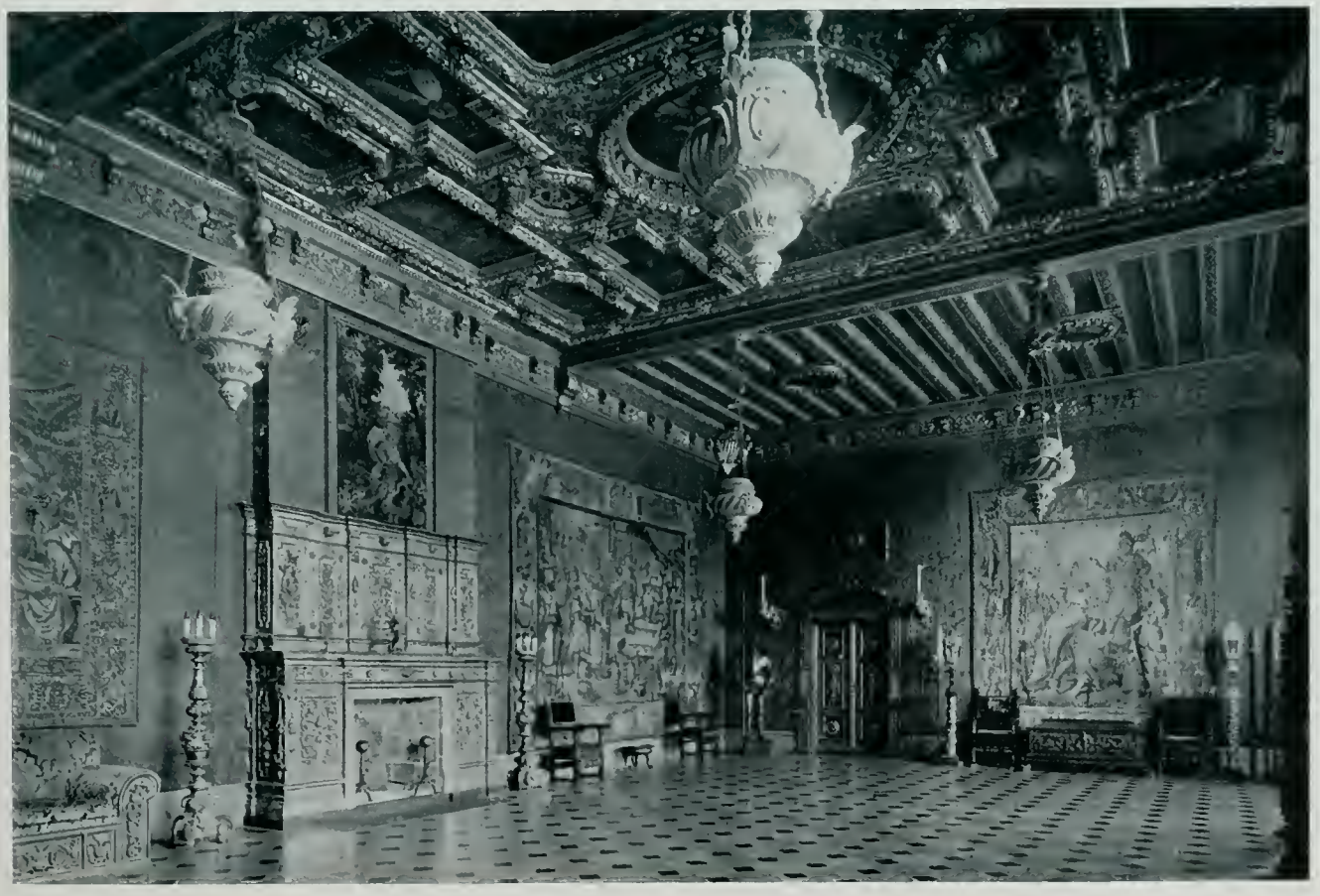
DETAIL OF NORTH FRONT

MAIN STAIR HALL, LOOKING TOWARD MAIN ENTRANCE



MAIN STAIR HALL, LOOKING TOWARD DINING ROOM

LIVING ROOM



GREAT HALL

"LANTARNAM HALL" PERCY T. MORGAN, Esq., LOS ALTOS, CAL.

JOHN H POWERS, Architect

MRS MORGAN'S CHAMBER

GUEST CHAMBER

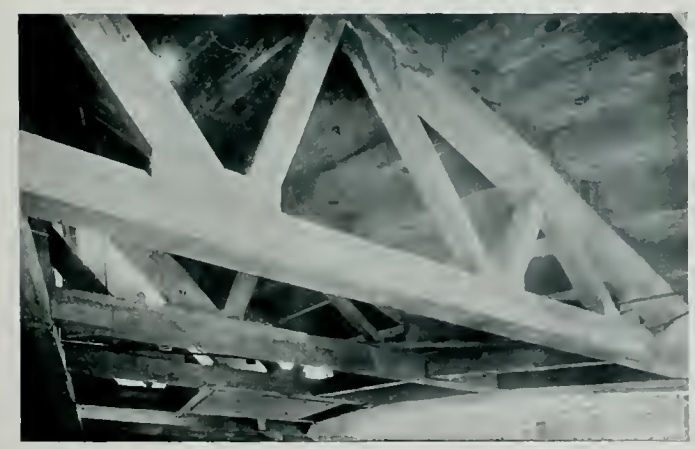
"LANTARNAM HALL" PERCY T. MORGAN, Eso., LOS ALTOS, CAL.

JOHN H POWERS, Architect

EPISCOPAL CHURCH, LOS ALTOS, CAL.

COXHEAD & COXHEAD, Architects

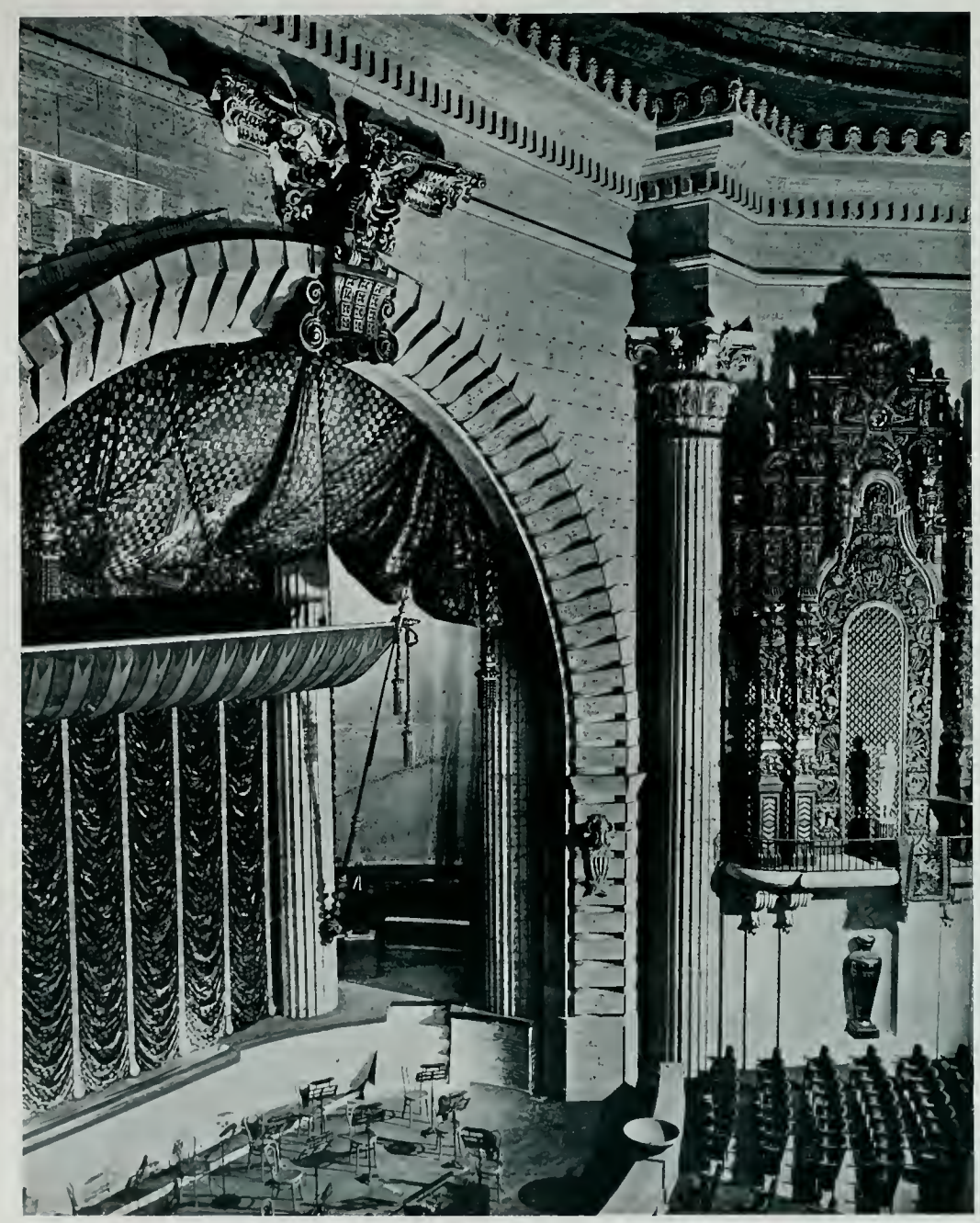
VIEW LOOKING TOWARDS BALCONY



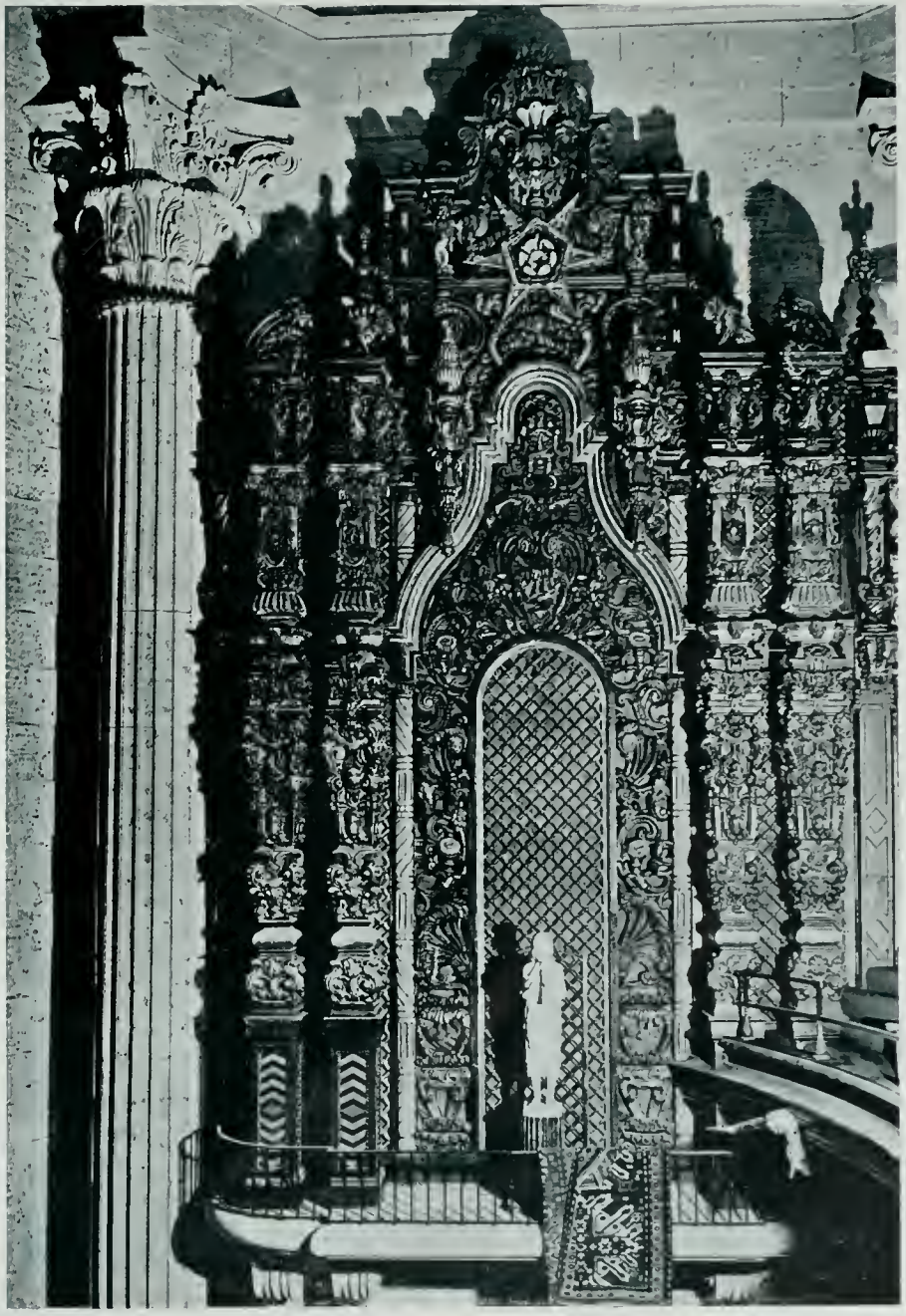
BALCONY CONSTRUCTION

ARCH AND CANTILEVERS

GRAUMAN'S THEATRE, LOS ANGELES
A. C. MARTIN, Architect

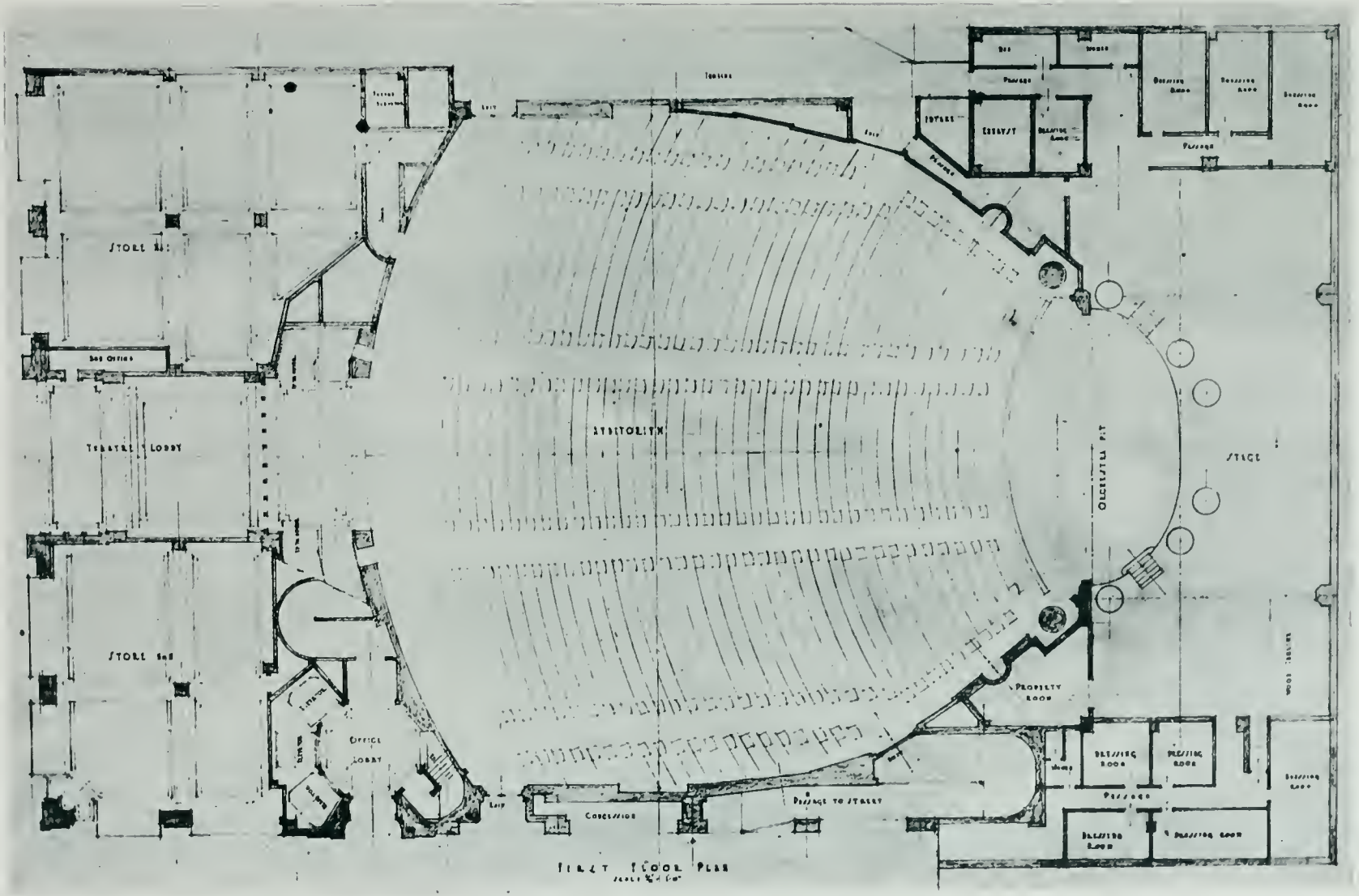


VIEW TOWARD PROSCENIUM ARCH AND ORGAN SCREEN
SHOWING ORCHESTRA PIT



ORGAN SCREEN

GRAUMAN'S THEATRE, LOS ANGELES
A C MARTIN, Architect



FIRST FLOOR PLAN
GRAUMAN'S THEATRE, LOS ANGELES
A. C. MARTIN, Architect

CALIFORNIA THEATRE, SAN FRANCISCO
ALFRED H. JACOBS, Architect

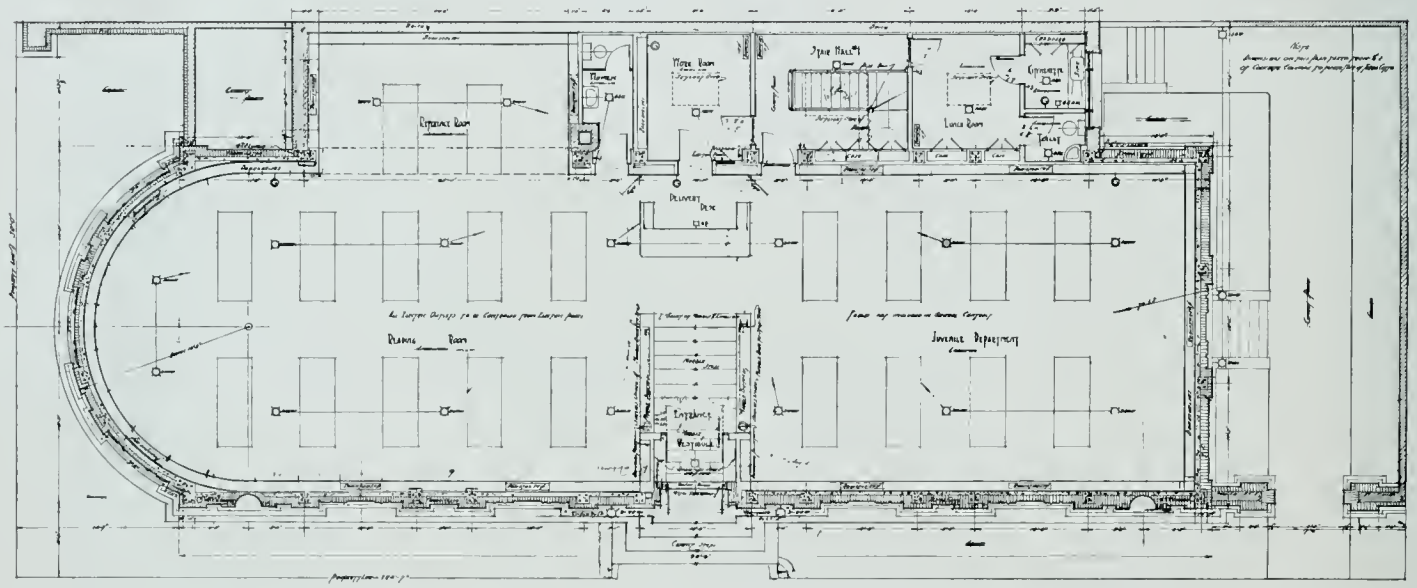
THEATRE ENTRANCE

FOYER, CALIFORNIA THEATRE, SAN FRANCISCO

ALFRED H. JACOBS, Architect

GOLDEN GATE VALLEY BRANCH, SAN FRANCISCO PUBLIC LIBRARY

COXHEAD & COXHEAD, Architects



MAIN FLOOR PLAN
GOLDEN GATE VALLEY BRANCH, SAN FRANCISCO PUBLIC LIBRARY
COXHEAD & COXHEAD, Architects

The Small Business Building

By E. C. BARTHOLOMEW

THERE is no dearth, in this country, of great buildings which are magnificent examples of the builder's art. With the completion of the Woolworth building on Manhattan to greet the eye of the visitor from foreign shores the time was passed when America needed apology for her art. It has been proven that really fine things are possible in this country.

Much thought and study is devoted to the designing of the larger buildings, but the small building which holds the attention is unusual. Considering the fact that this is the commonest problem which comes to the builder it seems strange that the notable examples of his achievement are not more numerous.

Business and especially small business is very conservative, and hesitates to attempt or accept anything out of the ordinary. Interesting small shops are seen far more frequently on the continent than here, as might be expected, for the small shop holds a far more important place in continental business than it does with us.

No reasons present themselves which seem adequate to explain the lack of interest found in the small building, two or three stories in height and wide enough to accommodate two stores or bays. As the eye wanders along street after street, especially in a strange city, the relief is almost startling when it rests on a really pleasing small exterior. The large building attracts the notice from a slight distance, but the smaller one meets you almost face to face.

There is one exception to all this which is noticeable enough to cause comment. If you see an entrance being remodeled, and the tile workers are there and interesting bits of leaded glass, unusual tile, sometimes very well designed and in good color, you look about immediately for a liquor sign, and it is not often missing. In one instance it proved to be a florist's shop and in another a tea room. But in general the saloon keeper seems to be the one person who appreciates the value of an entrance which shall attract his customers, or perhaps he realizes its economic value.

The great sheets of plate glass available and so generally used in store fronts have exerted a marked influence on our building. When necessity required the use of smaller panes of glass our buildings were better looking. With our closely built cities, light is the great necessity. The commercial instinct clamors for a brilliant showing of its wares. Hence the building as a structure is subordinated to the windows as an economic necessity.

The store building on West 45th Street, New York, which is illustrated in the accompanying drawings by photograph, elevation and scale details, accepts these conditions frankly. The whole facade of the building, as far as practicable, is of glass, with a carefully designed setting of stone. Its entire simplicity differentiates it from other buildings of its class.

SMALL BUSINESS BUILDING
WEST FORTY-FIFTH STREET, NEW YORK CITY

THE ARCHITECT

VOL. XVI SAN FRANCISCO, AUGUST, 1918 NO. 2

Editorial.

What Is the Matter With Architecture?

The architectural press has recently devoted much space in conducting a symposium participated in by leading members of the profession on a subject which may be broadly designated as "What is the matter with Architecture?"

The views presented run the gamut of architectural emotion, from self-satisfaction on the part of some to a profound **mea culpa** on the part of others. In between are a few "rays serene" of common sense and much of the common or garden variety of platitude, the whole symphony, however, typifying deep melancholy.

When an architect sits down and takes pen in hand, it is fifty-fifty that he has nothing to do, or has not had time to cool off after losing an expected commission; that he is pessimistic under such trying circumstances, goes without saying. We suffer from an ungrateful public or equally ungrateful republic. Engineers are blamed and contractors condemned. Construction companies are anathema and the rest of us architects are —— fools and don't know our business. Then there are the sins of omission and unfortunately too few (hence these tears) the sins of commission.

MAGDALEN TOWER, OXFORD

Cheer up—the worst is yet to come and the worst we expect don't happen. Other professions have their troubles. All have some dependency which in the opinion of the principal infringe on his rights or prerogatives. The physician would prevent the druggist selling cough medicine and cathartics, were he able, and the attorney would restrain the notary (by legal process, of course) from drawing a deed. Each, including the architect, failing to recognize that there is an exceedingly large public that lacks either the ability to pay for proper service or the culture to appreciate it, added to which is the innumerable caravan who pass on looking for bargains, cheap johns and cure-alls.

It may be a cause for regret that architects did not receive as large a share of war work construction as they may have been justly entitled to but old General Recognition appears to have arrived on the job and a considerable if hesitating advance may be looked for. Further, it should be some slight satisfaction to the architect that a major portion of the rapid building accomplishment of war work has been due in a considerable measure to the building superintendents and draftsmen recruited from and trained in our best offices.

To those who would look for radical change in the practice of architecture I would suggest a reading of a series of laments written by one Vitruvius 1950 years ago and incidentally call attention to the introduction to Book II which appears to concern advertising and salesmanship. After scanning this ancient clinical chart and history we must conclude that there is at least, after all these years, no new ills afflicting architecture, and that with careful nursing, rest and a not too restricted diet, the patient having a fairly sound constitution, has more than a fighting chance for recovery.

SYLVAIN SCHNAITTACHER.

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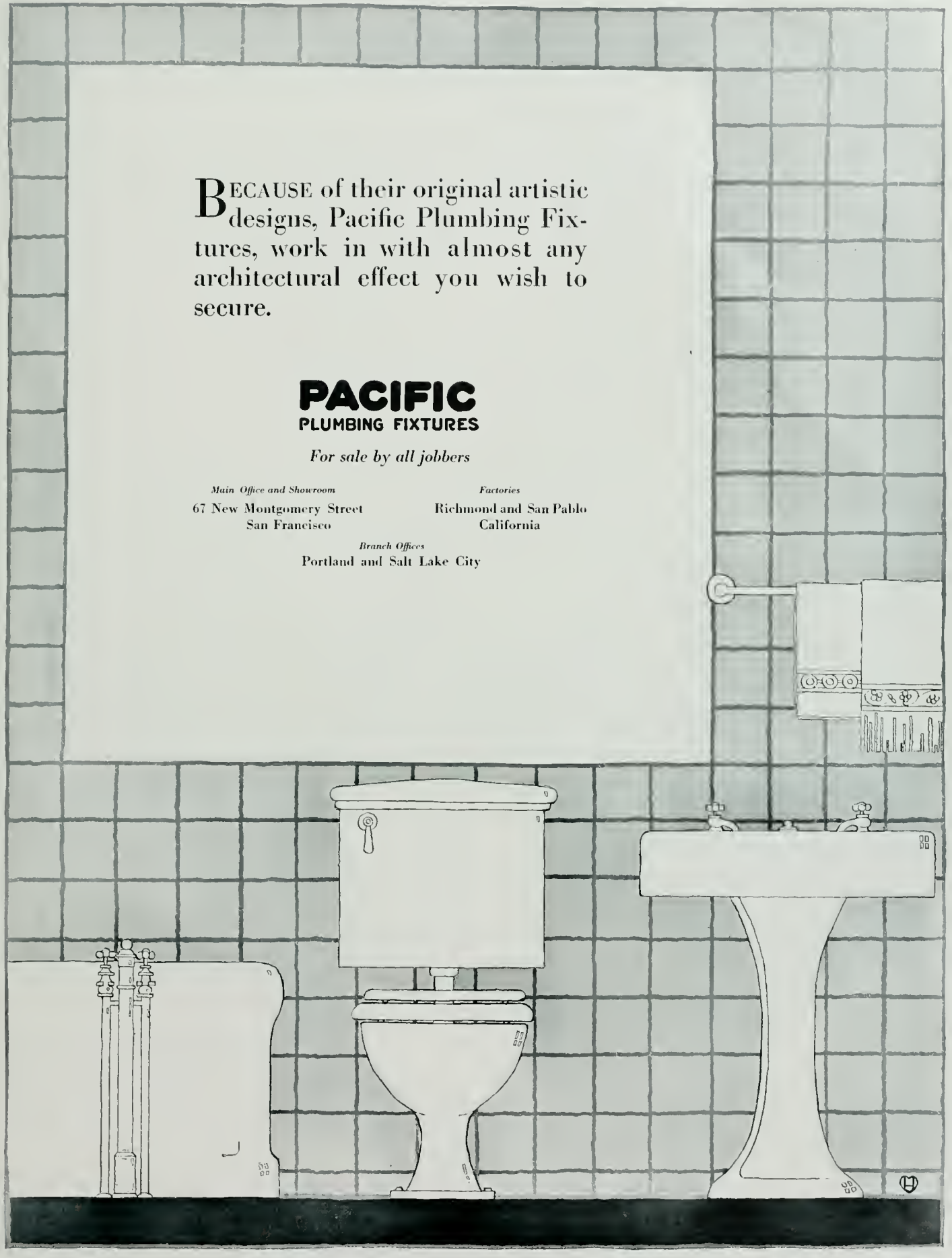


"TARGET AND ARROW" ROOF ON INDEPENDENCE HALL

Recently, the authorities in charge of the maintenance of Independence Hall have decided that the time has come to put into action the long considered plan of replacing the tin roof on Independence Hall with shingles, so as to restore the old building to its original appearance. We have had warning of this from time to time, and as the adjoining building known as Congress Hall was remodeled in this way several years ago, and roofed with shingles, also the two wings of Independence Hall, we know that it was only a matter of time before they would make these alterations on the main building to restore it exactly to its original appearance. The authorities in charge admit that they are reluctant to take off the tin roofing, as it is in perfect condition; in fact, they would probably leave the deck on the top of the building untouched if it were not for the fact that they are going to lower that part of the building several inches and this necessitates removing the tin. While it might be possible to remove the old tin and replace it after the work is finished, the authorities prefer to make a complete new job of it.

Copper was mentioned for this purpose, but was promptly turned down in favor of "Target and Arrow Tin." Therefore, our tin is the only plate specified and those in charge of the work tell us that they will not permit the use of any other kind of tin; in fact, the City Architect said that he, personally, would inspect the roof after it was completed to make sure that there had been no substitution. The authorities are high in their praise of the splendid service that our tin has given on this building and tell us they regret that these changes make it necessary to disturb it. It is, of course, a matter of great disappointment to us that this roof, which is now thirty years old, and going strong, has to be removed before it has had a chance to show what a "Target and Arrow" roof can do. It is some comfort to us that the tin is not being removed through any fault of the plate and that the same brand will be used for the metal work on the new roof — the flashings, gutters, etc., as well as the main deck.

We do not know when the work will start, but want to post you well in advance so that if any misleading reports happen to come out in the trade papers, you will be prepared with the facts.

H. N. TAYLOR.

SINKING OF THE STEAMSHIP NAPOLI.

With the sinking of the S.S. Napoli in the Mediterranean on her way from the United States to Italy, were carried down $100,000 worth of Berry Brothers Aeroplane Varnishes. This material was for the Italian Government. The Napoli, a China steamer requisitioned by the Italian Government, left the United States about June 15th.

MANUFACTURING EQUIPMENT AND ENGINEERING COMPANY

METAL STOOLS AND CHAIRS

Our Lines Also Include:

Individual Washbowls in Batteries
Stock and Storage Racks
Metal Lockers
Metal Shelving
All-Steel Stools and Chairs
Steel Stools and Chairs with Insert Wood Seats
Metal Vault Fixtures
Improved Soda Kettles, 40 and 60
Water Heaters and Instantaneous Mixers
Work Benches and Bench Legs
Drawing Stands, etc.

SEND FOR CATALOGS AND PRICES

METAL LOCKERS

This company manufactures lockers in standard and special types and sizes; with standard or special equipment in varied gauges with standard or special lock and locking devices; furnished in black, green, maroon and various other colors in baked enamel; in single or double tier; in single or double battery; arranged according to specifications as required, and designed for the special use for which they are furnished. We have many types and carry a large stock on hand.

J. A. DRUMMOND, CALIFORNIA REPRESENTATIVE, 245 MISSION ST., SAN FRANCISCO

REFLECTOLYTE

Makes Day of Night

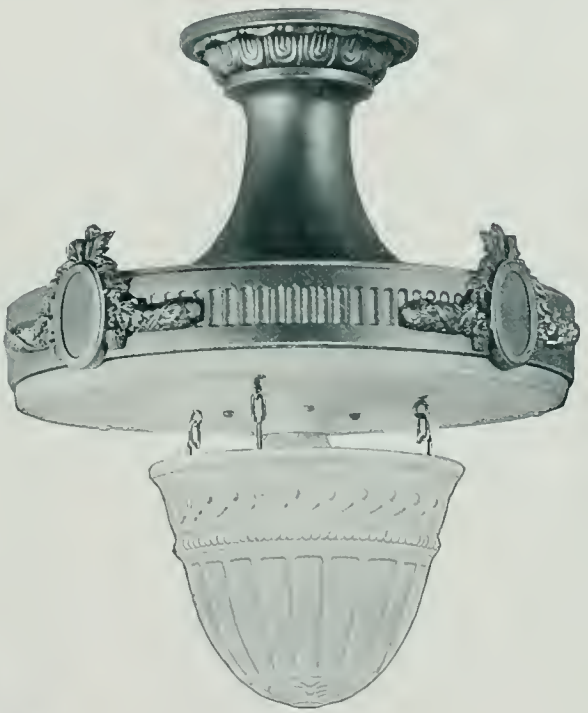
THE REFLECTOLYTE is a scientifically constructed and mechanically perfect lighting unit, designed to radiate and diffuse the brilliant light of modern high-intensity lamps.

Unlike the average lighting unit, the reflector of the Reflectolyte is not simply covered with white paint or enamel, but is "fired on" porcelain.

The result is a reflecting surface that is impervious to wear and which will remain white indefinitely after installation and use.

The sharp edge of a knife drawn along the surface of any reflector will determine its permanent quality. If a knife will remove the painted surface, the intense heat and the bleaching effect of the light must and will cause deterioration and final destruction of the reflecting surface.

Type P. F.
Band dull brass finish. Reflector, white porcelain enamel.



Type A. N.

The reflecting surface of the Reflectolyte will remain white forever. The sharpest knife cannot remove it, and it is not affected by alcohol, gasoline, boiling water or heat not in access of 1000 degrees Fahrenheit.

The body of the reflector is made of heavy enameling steel of the best quality. The rim or band is brass covered, especially treated so that it will not tarnish.

Type J. Metal parts, dull brass finish. Reflector, opal glass.

THE REFLECTOLYTE CO.

Manufacturers

J. A. DRUMMOND

California Representative

245 Mission Street San Francisco, Cal.

Catalogs and Information on Request

ARCHITECTS' REFERENCE INDEX

Containing List of Manufacturers, Their Representatives and Serviceable Literature

ASBESTOS BUILDING LUMBER
Keasbey & Mattison Co., Ambler, Pa.
J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Illustrated and descriptive pamphlet, 7¾x10¾, 8 pp. Pamphlet, 4x8½, 8 pp. Price list, 3½x6¼. Literature of various sizes, samples, etc. "Service Sheets," working drawings, details of application, size 16½x21½.

ASBESTOS CORRUGATED SHEATHING
Keasbey & Mattison Co., Ambler, Pa.
J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Descriptive catalogue, 5¼x8¼, 24 pp. Catalogue of details and specifications for application of roofing and siding, size 8½x11, 40 pp. Lists of buildings covered. Price lists, 3½x6¼, 6 pp., and literature of various sizes, samples, etc. "Service Sheets," working drawings, details of application, size 16½x21½.

ASBESTOS SHINGLES
Keasbey & Mattison Co., Ambler, Pa.
J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Illustrated catalogue. Detail specifications, 8x10, 20 pp. Descriptive catalogue, various types of roof covering, 5¼x8¼. Various pamphlets, 3¾x6. Current price lists, 3½x6¼, 6 pp. Lists of buildings and literature, various sizes, samples, etc. "Service Sheets," working drawings. Detail of application, size 16½x21½.

BARS, REINFORCING
Pacific Coast Steel Co., Rialto Building, San Francisco, Cal.
Square, round and corrugated.

BRICK, ENAMELED
Los Angeles Pressed Brick Co., Frost Bldg., Los Angeles, Cal.
United Materials Co., 5 Crossley Bldg., San Francisco, Cal.
Catalogue on "Enameled Brick for Facing," illustrating and listing names of prominent buildings finished with Enameled Brick. 5x7½, 48 pp.

BRICK, FIRE AND REFRACTORIES
Gladding, McBean & Company, Crocker Bldg., San Francisco, Cal.
Los Angeles Office, Trust and Savings Bldg.
Price list No. 45 on Clay Products. 5x7½ in. 70 pages, containing illustrations.
Los Angeles Pressed Brick Co., Frost Bldg., Los Angeles, Cal.
United Materials Co., 5 Crossley Bldg., San Francisco, Cal.
Descriptive catalogue, 5x7, 54 pp.
Simons Brick Company, 125 West Third Street, Los Angeles, Cal.

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Gladding, McBean & Company, Crocker Bldg., San Francisco, Cal.
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Los Angeles Pressed Brick Co., Frost Bldg., Los Angeles, Cal.
United Materials Co., 5 Crossley Bldg., San Francisco, Cal.
Moulded and Ornamental Pressed Brick. General catalogue. 5x7, 54 pp.
Simons Brick Company, 125 West Third Street, Los Angeles, Cal.

CEMENT, PORTLAND
Atlas Portland Cement Company, The, 30 Broad St., New York.
(Western Representatives, see advertisement.)
Building a Bungalow. Addressed to owners. Booklet 8x10½ 14 pp, with 4 insert plates.
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Santa Cruz Portland Cement Co., Crocker Bldg., San Francisco.
Standard Portland Cement Co., Crocker Bldg., San Francisco, Cal.
Bulletin 12 pp. Size 6x9; also furnish bulletins and specifications for various classes of work requiring Portland Cement.

CORK FLOOR
Van Fleet-Freear Co., 120 Jessie Street, San Francisco, Cal.
Illustrated catalogues, etc.

DECORATORS, INTERIOR
O'Hara & Livermore, 522 Sutter Street, San Francisco, Cal.
O'Hara & Livermore, 253 East Colorado Street, Pasadena, Cal.

ELECTRICAL EQUIPMENT
Keasbey & Mattison Co., Ambler, Pa.
J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Descriptive Pamphlet, 3½x6. 12 pp. Descriptive, 4x8½. 8 pp. "Service Sheets" working drawings. Detail of application. 16½x21½.
Walter Both, 1645 Mission Street, San Francisco.

ELEVATORS
Otis Elevator Co., Eleventh Avenue and 26th Street, New York.
Otis Elevator Co., 2300 Stockton Street, San Francisco, Cal. Offices in all principal Coast cities.
Otis Electric Traction Elevators. Bulletin. 6x9 in. 28 pp.

ESCALATORS
Otis Elevator Co., Eleventh Avenue and 26th Street, New York.
Otis Elevator Co., 2300 Stockton Street, San Francisco, Cal. Offices in all principal Coast cities.
Otis Escalators. Bulletin. 6x9 in. 36 pp.

FACTORY EQUIPMENT
Manufacturing Equipment and Engineering Co., Framingham, Mass.
J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Bulletins and various literature. "Sanitary Washbowls," 6x9 in., 8 pp. "Metal Lockers," 6x9 in., 8 pp.; "Plumbing Fixtures," 6x8 in., 8 pp.; "Metal Stools and Chairs," 6x9 in., 8 pp.; "Metal Storage Racks," 6x9 in., 16 pp.; "Bubbling Fountains," 6x9 in., 4 pp.

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W. P. Fuller & Co. Principal Coast cities.
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Glass Samples.
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J. A. Drummond, 245 Mission Street, San Francisco, Cal Pacific Coast representative CORRUGATED WIRE GLASS for skylight construction (without housings), used in connection with Ashestos Corrugated Sheathing. Catalogue of details. 8½x11. 40 pp.

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MacRorie-McLaren Co., 141 Powell Street, San Francisco, Cal.
Descriptive catalogue. 5x8¾. 52 pp.

LIGHTING EQUIPMENT
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J. A. Drummond, 245 Mission Street, San Francisco, Cal.
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Gladding, McBean & Company, Crocker Bldg., San Francisco, Cal.
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Price list No. 45 on Clay Products. 5x7½ in. 70 pages, containing illustrations.
Los Angeles Pressed Brick Co., Frost Building, Los Angeles, Cal.
United Materials Co., 5 Crossley Bldg., San Francisco, Cal.
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Berry Bros., 250 First Street, San Francisco, Cal.
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Luxeberry Cement Coating. Color card. 3⅛x8⅞ in. 3 pp.
Boston Varnish Co., Everett Station, Boston.
San Francisco Office, A. L. Greene, Mgr., 269 Eighth Street.
Kyanize Enamel. Complete specifications. Booklet. 5x7 in. 20 pp.
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R. N. Nason & Co., 151 Potrero Avenue, San Francisco, Cal.
Catalogues, literature and color cards.
Wadsworth, Howland & Co., Inc., 139 Federal Street, Boston.
San Francisco Office, James Hambly & Sons, 268 Market Street, San Francisco, Cal.
Los Angeles Office, 447-449 E. Third Street, Los Angeles, Cal.
Bay State Brick and Cement Coating. Catalogue. 4x9. 24 pp. Color plates.
Bay State Finishes, Stains, and Varnishes. Pamphlets. Color cards, etc.

PLUMBING EQUIPMENT
Pacific Sanitary Mfg. Co., 67 New Montgomery Street, San Francisco, Cal.
Northern Manager, H. L. Frank, 80 Front Street, Portland, Ore.
Southern Manager, C. B. Noyes, 201 Union Oil Building, Los Angeles, Cal.
General catalogue "C." 6½x9 in. 176 pp. Indexed.
School Sanitation Book. 6x9. 32 pp.
Export Catalog "E." 6x9. 160 pp.
Book of Bath Rooms (for clients). 6x9. 56 pp.
Standard Sanitary Manufacturing Co.
San Francisco Warehouse, Display Rooms and Offices, Bluxome St.
Los Angeles Warehouse, Display Rooms, Offices, Mesquit St.
Seattle, 5300 Wallingford Ave.
General Catalogue "P," 9x12, 674 pp. General Catalogue "PF," 9x12, 329 pp. Factory Sanitation Catalogue, 9x12, 36 pp. Built-in Bath, 9x12, 37 pp. Pottery Catalogue Sanitary Earthenware, 9x12, 38 pp. Shower Booklet, 3½x6, 19 pp. Efficiency Kitchen Book — Modern Kitchen Equipment, 5x7, 15 pp. Plumbing Fixtures for the Home, 5x7¾, 63 pp.

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National Mill & Lumber Co., 318 Market Street, San Francisco, Cal.
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POTTERY, GARDEN
Gladding, McBean & Company, Crocker Bldg., San Francisco, Cal.
Los Angeles Office, Trust and Savings Bldg.
Price list No. 45 on Clay Products. 5x7½ in. 70 pages, containing illustrations.

REFRIGERATION
Kroeschell Bros. Ice Machine Co., 472 West Erie St., Chicago, Ill.
J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Catalogue descriptive of installation for various purposes and types of buildings, 6x9 in., 12 pp. "Hospital Refrigeration," 6x9 in., 8 pp. "Marine Refrigeration," 6x9 in., 12 pp.

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North Western Expanded Metal Co., 934 Old Colony Building, Chicago, Ill.
"Chanelath" Handbook. Treatise on ribbed metal lath details and specifications of its application to reinforced concrete construction and for plastering work. 6x9 in. 64 pp.

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Taylor Co., N. & G., 300 Chestnut Street, Philadelphia, Pa.
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Current Price List.

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Leonard Peterson & Co., 1234-48 Fullerton Ave., Chicago, Ill.
J. A. Drummond, 245 Mission Street, San Francisco, Cal.
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Leonard Peterson & Co., 1234-48 Fullerton Ave., Chicago, Ill.
J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Laboratory Furniture Catalogue No. 9 for Chemistry, Physics, Biology, Physiography, Domestic Science, Pathology, Hospitals, Filtration, City Testing, and Industrial Plants. 7x10 in., 95 pp.

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Richard Spencer, 932 Hearst Building, San Francisco, Cal.

SEWER PIPE AND CLAY PRODUCTS
Gladding, McBean & Company, Crocker Bldg., San Francisco, Cal.
Los Angeles Office, Trust and Savings Bldg.
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Woods, Huddard & Gunn, 444 Market Street, San Francisco, Cal.

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Los Angeles Office, Trust and Savings Bldg.
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Los Angeles Pressed Brick Co., Frost Building, Los Angeles, Cal.
United Materials Co., 5 Crossley Bldg., San Francisco, Cal.
Hollow Tile Fireproofing. General catalogue. 5x7 in. 54 pp.
Simons Brick Company, 125 West Third Street, Los Angeles, Cal.

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Gladding, McBean & Company, Crocker Bldg., San Francisco, Cal.
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Descriptive catalogue. 5x8¾. 52 pp.

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Natural Woods and How to Finish Them. Luxcherry cement coating color cards. 3⅛x8⅞. 3 pp. Complete varnish specifications. 4¼x6½. 94 pp.
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R. N. Nason & Co., 151 Potrero Avenue, San Francisco, Cal.
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Samson Cordage Works, 88 Broad Street, Boston, Mass.
Pamphlet in colors. 3½x6¼. 24 pp.

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Descriptive catalogue. 5x7 in. 32 pp.

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Los Angeles Office, 447-449 E. Third Street, Los Angeles, Cal.
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Otis Electric Traction Elevators. Bulletin. 6x9 in. 28 pp.

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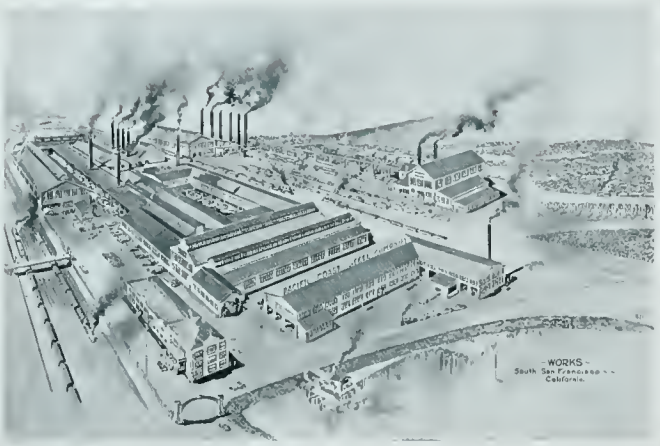

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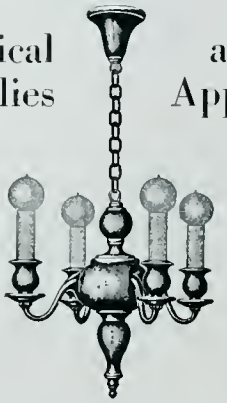

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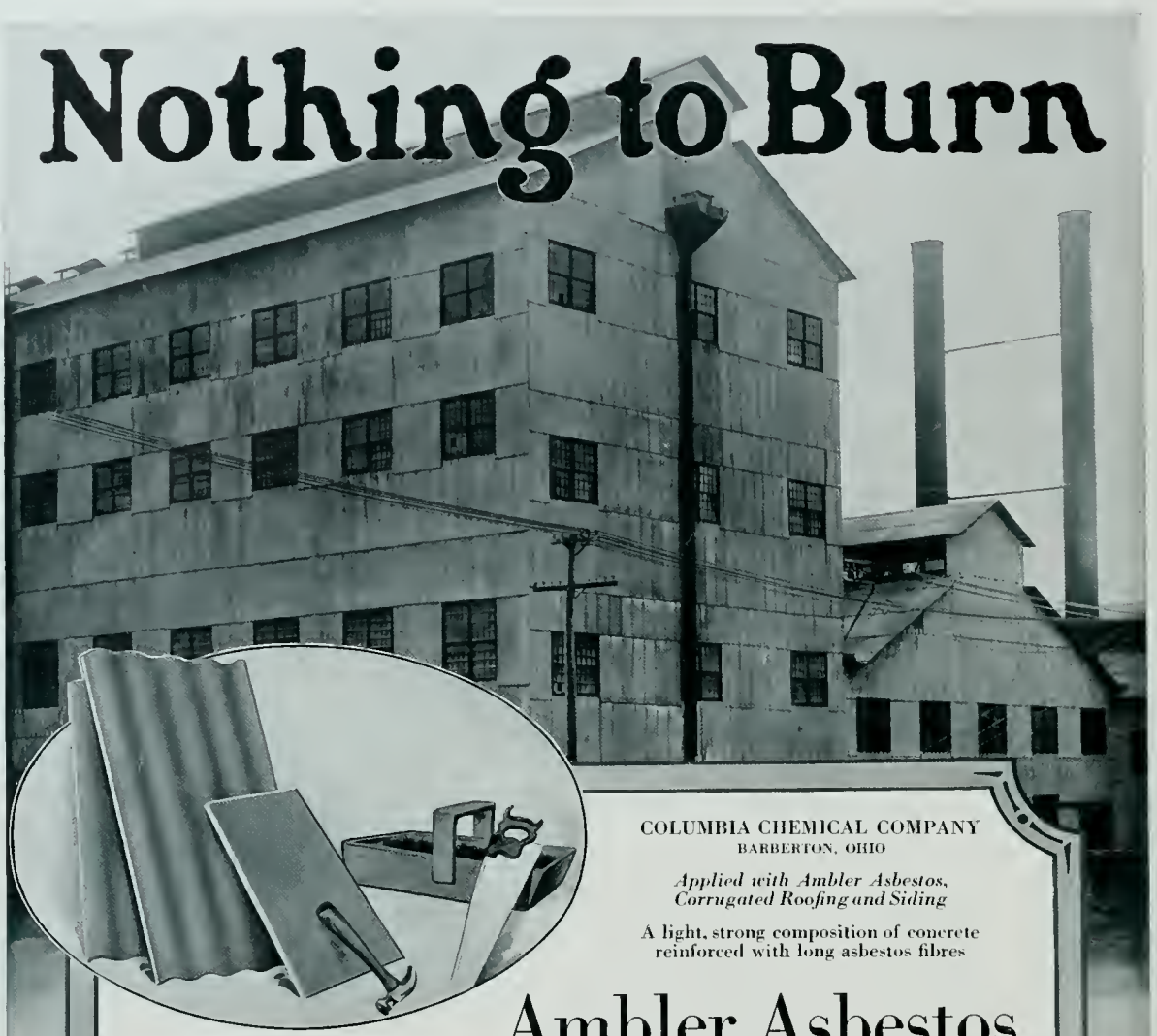

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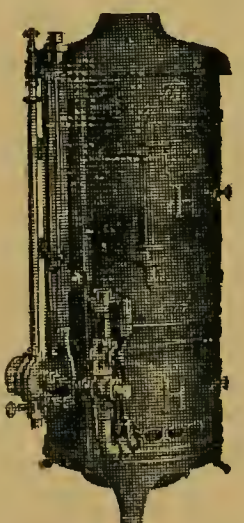

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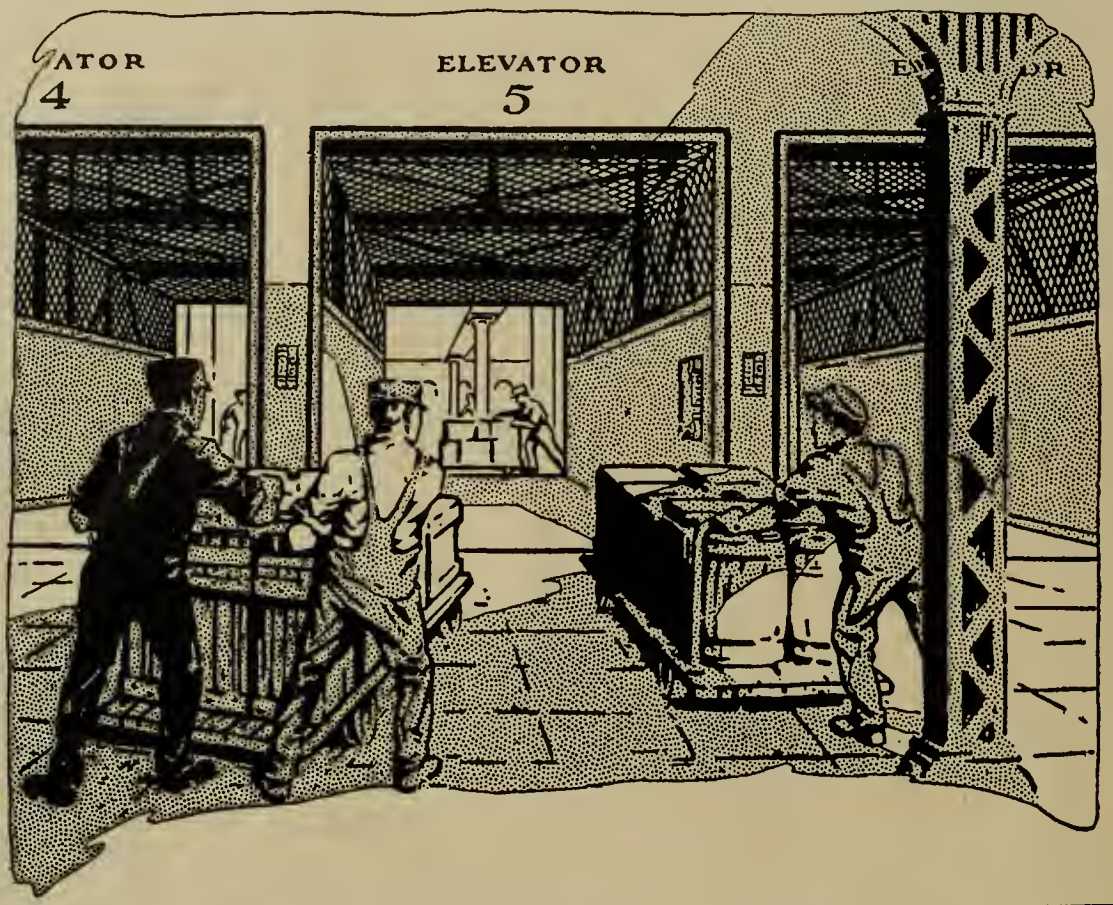

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VOLUME XVI · NUMBER 3
SEPTEMBER · 1918

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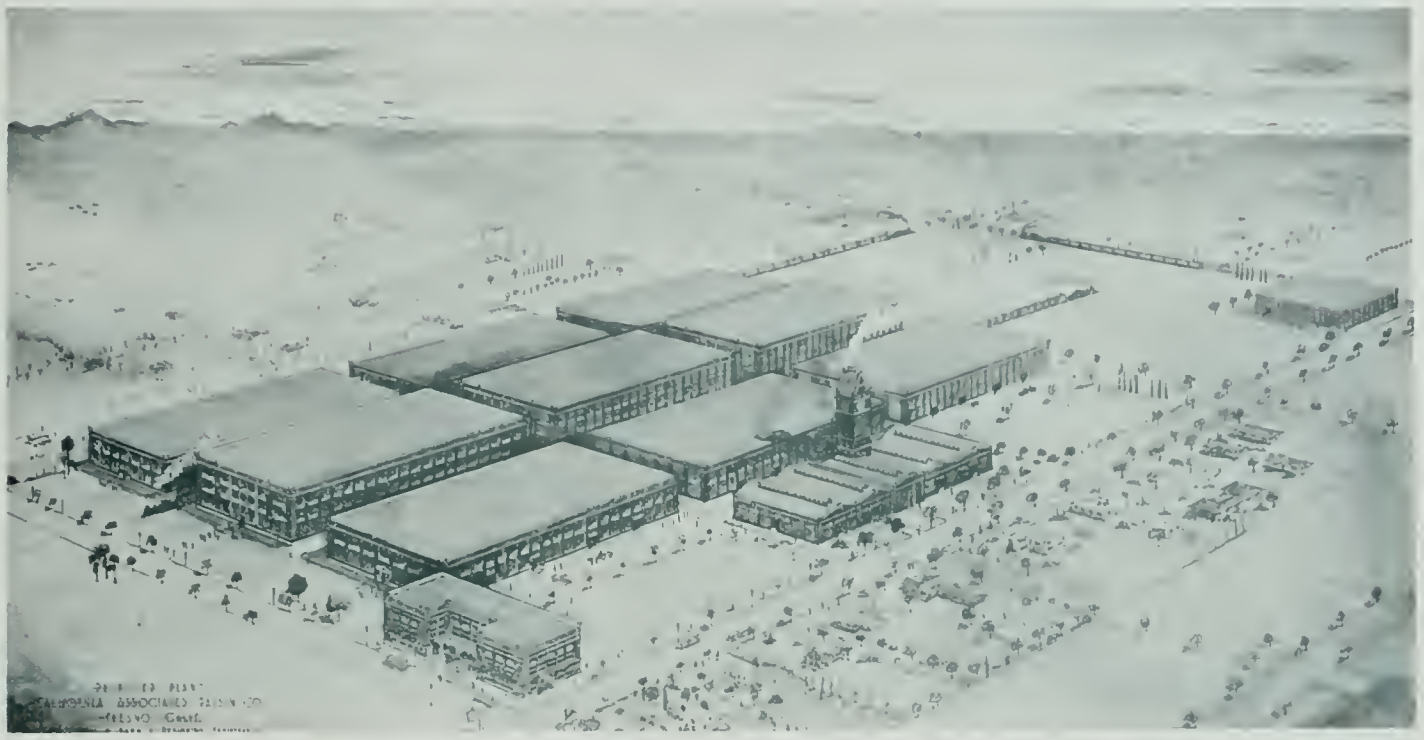
THE ARCHITECT
VOL. XVI SAN FRANCISCO, SEPTEMBER, 1918 NO 3

Comments on Industrial Engineering

By FELIX KAHN



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MACDONALD & KAHN Designing Engineers

IN the present era of keen industrial competition, with the resultant speeding up of factory output, the proper layout of equipment and housing is an essential requisite. Nevertheless, even after all requirements have been met in these essentials, if other factors contributing to the morale of the individual workers are ignored, the plant does not attain its maximum of efficiency. In this connection should be considered the attractiveness of the plant itself and of the grounds surrounding it, recreation facilities, the proper safeguarding of the health of employees, and the elimination, as far as possible, of risk to life and limb.

The progressive, successful manufacturer realizes that his cost of production and amount of output were adversely affected by the loose methods of the past, when four walls and a roof afforded shelter for an unstudied layout of equipment. He, therefore, in planning new works, acquaints himself with other successful plants and methods, and with his works manager maps out his general scheme and his process schedule. It is here that the usefulness of the industrial engineer comes into play. He consults with the works manager on the process schedule and with him develops his routine diagrams. The process schedule shows the desired equipment, and the routine diagram shows the progress of the raw material to its finished state. He establishes the type of building to be adopted (the housing of the plant under one roof or a series of unit buildings, and whether one story or multi-story), the method of construction (whether fire-resisting or fire-proof), and what materials of construction are best suited to the locality.

The question of type of building is one that is governed entirely by circumstances, relative to the article to be manufactured, cost of the property, etc. Heretofore the adoption of the single story building, with a large ground area in consequence, was almost universal, especially in those plants which handled materials requiring any great amount of lifting. With the recent developments of high speed elevators and conveyors, however, the difficulty of handling material has been practically eliminated, and the general trend today is towards the multi-story type. In many cases where the work is of a heavy character and property can be secured at low cost the single story type will be found to have advantages;

BUILDING FOR THE NATIONAL PAPER PRODUCTS CO., SAN FRANCISCO
(ZELLERBACH PAPER WAREHOUSE)
MACDONALD & KAHN Industrial Engineers

provided, however, sufficient ground area is secured for future extension of the plant, where increase in production is deemed probable. All plants should be designed for future or ultimate capacity. Hence an elastic layout is necessary, capable of expansion at a minimum of expense and interruption to business.

Generally speaking no method of construction should be considered that is not fire-proof, though in some isolated cases a fire resisting mill construction, well sprinkled, will suffice. An owner can always be secured against loss of equipment and building, but in the event of such serious destruction to his plant as would occur in non-fire proof construction, involving a cessation of operation, he faces an uncovered loss.

While the fundamental requisite of a factory building must be utility, aligned with it now stands attractiveness, or beauty. Beauty does not mean a lavish display of over decoration in form or color. A proper regard for proportion, mass, balance, good taste in color, disposition of members, and in the use of materials will result in attractiveness. Above all a factory building should appear to be what it is. This does not mean that it should have a cold, hard appearance and be devoid of all architectural treatment. The employment of a minor amount of decoration or enrichment is certainly permissible. A factory building of good architectural appearance redounds to the credit side of the ledger in a variety of ways. As an advertising medium it is of decided value. A building pleasing to the eye will undoubtedly produce in the minds of the workmen a different attitude towards their work, one tending to greater enthusiasm and contentment, unconsciously creating efficiency.

As to the safeguarding of the employee against accident, the greatest agency in this direction is the introduction of good and sufficient lighting, both natural and artificial. Aside from this value, good lighting lessens loss of efficiency in the mechanical equipment of the plant. Moreover poorly lighted shops are certain to be far behind in cleanliness and sanitation. Dark corners invite the collection of dirt, which, not being directly visible, is allowed to remain, making the plant slovenly in appearance and unsanitary. The best diffusion of light can be

secured by placing the heads of windows as close to the ceiling as possible. With the cost of large size steel windows offsetting that of filling walls between piers, a maximum of light can be secured at no additional expense. In buildings containing stories of good height, a lighting area in exterior walls of 60 per cent. of surface can be attained. As the best of lighting will be impaired if the windows are allowed to accumulate dirt, care should be taken that all windows are readily accessible to the window cleaner. The character of work done in the factory will establish the system of artificial lighting to be adopted, but usually it is desirable to have a scheme of general lighting with local lighting where necessary.

The adoption of an effectual scheme for heating and ventilating will be influenced by the type of building and the character of work done in the factory. Relying upon ventilation by opening portions of the enclosing sash alone is insufficient in most cases. We have a choice in the matter of heating of three systems, plenum, steam and hot water. Outside of the unsightliness of the many ducts in the plenum system, it is probably the most satisfactory, as it not only gives control of the heating, but in hot weather cool, fresh air can be forced throughout the building.

The value of welfare work in the factory has long been demonstrated, but its fullest importance has been brought out during the present world conflict. The welfare of the worker is of utmost importance in production, and the employer who grasps this works to the benefit of his employee and to his own profit as well.

Of special interest to the industrial engineer are those phases of welfare work that deal with working conditions, food and dirt, recreation and health. All these have direct bearing on the amount of production in the factory, and must be considered in the development of the plant. The proper regard for lighting, ventilation, heating, plumbing and drainage will result in working conditions necessary for efficiency and profitable production.

The employer is rapidly realizing that the health of employees is of paramount importance in the operation of his plant, and that a state of well-being after meals is reflected in production and accident records. Hence the recognized importance of the company restaurant. Due to its omission from most factories, a sanitary restaurant with well selected and cooked foods is not always available. The men must depend upon the small and usually unclean neighborhood eating places or saloons. They rush from their work and hurriedly swallow poor food and in some cases worse drinks. Large numbers of accidents are directly traceable to this habit. With the establishment of the company restaurant this is avoided and the men partake of a wholesome meal at a minimum

BAG SEWING DEPARTMENT
CALIFORNIA AND HAWAIIAN SUGAR REFINING CO., CROCKETT, CAL.
A. A. BROWN, Construction Engineer

CALIFORNIA AND HAWAIIAN SUGAR REFINING CO., CROCKETT, CAL.
A. A BROWN, Construction Engineer

cost. The industrial army, as well as our army in France, "marches on its stomach." With proper food at noontime, there disappears the appreciable slacking up of production after the noon hour, which is so often noticed. These restaurants, under proper management, are self-sustaining and produce results to the employer in working conditions that are all profit. The future will see a wider extension of this form of welfare work.

A rest room in factories, especially where women are employed, should be provided in case of sudden indisposition of employees. It should be well lighted and be of cheerful aspect. In this connection also, it is the tendency of today to establish clinics, both surgical and dental, for emergency work. A physician and nurse in charge at all times will prove a profitable venture.

Provision for recreational facilities will be governed to a large extent by local conditions. Where spacious grounds are lacking, roof gardens can be provided. Fields for baseball, etc., are desirable where space permits.

Illustrating the foregoing requirements for a factory building may be taken the Zellerbach factory and warehouse, at Montgomery and Francisco Streets, San Francisco. The present structure occupies half the site of 41,000 square feet, making it possible to double the capacity in the future. Here we have the single building, multi-story type, of seven floors. Reinforced concrete construction was adopted throughout, including floors. Fire-proof construction was essential for the storing of paper products, and heavy floor loads, cost considered, determined the construction. The building is sprinkled throughout. Architecturally it is handled very simply, with an entire absence of color. Through a good spacing of windows and a breaking up of street facades by flat corner bays, enough variety is given the building to produce a pleasing appearance. The rest rooms and restaurant established on the roof have proved so popular that recent extensions have become necessary.

The plant of the California Associated Raisin Company at Fresno is a good example of the several-building, multi-story type. The ground area of 20 acres allows ample room for the various units, spur tracks and recreational facilities. At present there are under construction the seeding building, occupying an area of 160 by 300 feet, and the power house. The entire plant will consist of about ten buildings, comprising seeding building, power house, garage, office building, concentration building, stemming building, etc. In the main the layout consists of a grouping of the various buildings about two central spur tracks, with the office building and the power house to one side. For transportation facilities the site is particularly well chosen, being at the junction of two lines of railroads. The seeding building is being built of reinforced concrete, flat slab type, 3 way system. While really three floors only, unusually high ceilings were necessary, allowing for the use of various mezzanine floors. The first story is 24 feet high. This height was required to accommodate the conveyors, etc., carrying the packed raisins to the cars for shipment. The process of manufacture, from the receiving of raw materials to the distribution of the finished article, is from the top floor downward by gravity. The raisins are received from the cars and trucks and elevated to the third floor, where they are distributed from the elevator heads by belt conveyors to the processors and seeders. After being seeded they are dropped through chutes to the packing tables on the second floor. The packed boxes and cartons are

carried by belt to spiral roller conveyors and distributed to the first floor mezzanine. After boxes are lidded they are carried to cars by gravity conveyor.

Owing to the high stories in the seeding building an unusual amount of natural lighting is available. More than 60 per cent. of the wall surface is window. The metal sash are unusually large, having an area of over 275 square feet each. Here the windows are carried from practically the ceiling line to within 15 inches of the floor. Everything possible has been done to make working conditions satisfactory in this plant, by the establishment of ample shower rooms, rest rooms, lunch room, locker rooms and surgical and dental clinics. While in architectural treatment simplicity prevails, a small amount of decoration and variety in color has been employed. The corners are marked by pavilions and the main surfaces of cement are relieved at the spandrels by simple brick patterns. The cornice is finished in brick, carrying a line of color around the entire building. This line of color is balanced by a brick course at the main belt course line.

The Box Board Paper Mill for the National Paper Products Co., at Stockton, Cal., now being completed, is an example of the one story manufacturing plant covering a large area. The new plant probably presents the highest development of any paper mill in existence. Unlike most mills manufacturing containers, etc., with their detached buildings for the different processes, here the routine is continuously carried on under one roof. This necessitates a large ground area, the building above covering over three acres. While virtually a two story building, the manufacturing is done on the first floor; the ground floor is used for storage purposes principally. The enclosing walls are of brick and the interior construction is both wood and reinforced concrete, depending on the nature of the work done in the various departments. The complete development of the plant will include recreational and housing provisions for the employees. Architecturally little has been done, entire dependence being placed upon mass, line and window spacing for the pleasing effect produced. One outstanding feature of this paper mill is its exceptional natural lighting, a point habitually slighted in mills of this character.

NEW OFFICE AND STEEL BRIDGE ACROSS THE TRACKS WITH RAMP

Industrial Efficiency

By CHARLES T. PHILLIPS, C. E.

EMERSON is credited with having said that "Everything has a price—and if that price is not paid, not that thing but something else is obtained." A thorough realization of this maxim may have saved numerous manufacturers from commercial failure. The endeavor to obtain or to give something for nothing is not a sound business principle, and no great business was ever built under a management so short-sighted as to attempt the practice of such deception on itself or on the public. The ultimate result is sure to be financial quicksand for the manufacturer and a loss of confidence on the part of the consumer. The writer has practiced engineering for many years in the industrial field, and he has never seen anything other than failure result from an attempt to avoid legitimate cost. Concrete cases are usually more pointed than generalities, and a few will be cited.

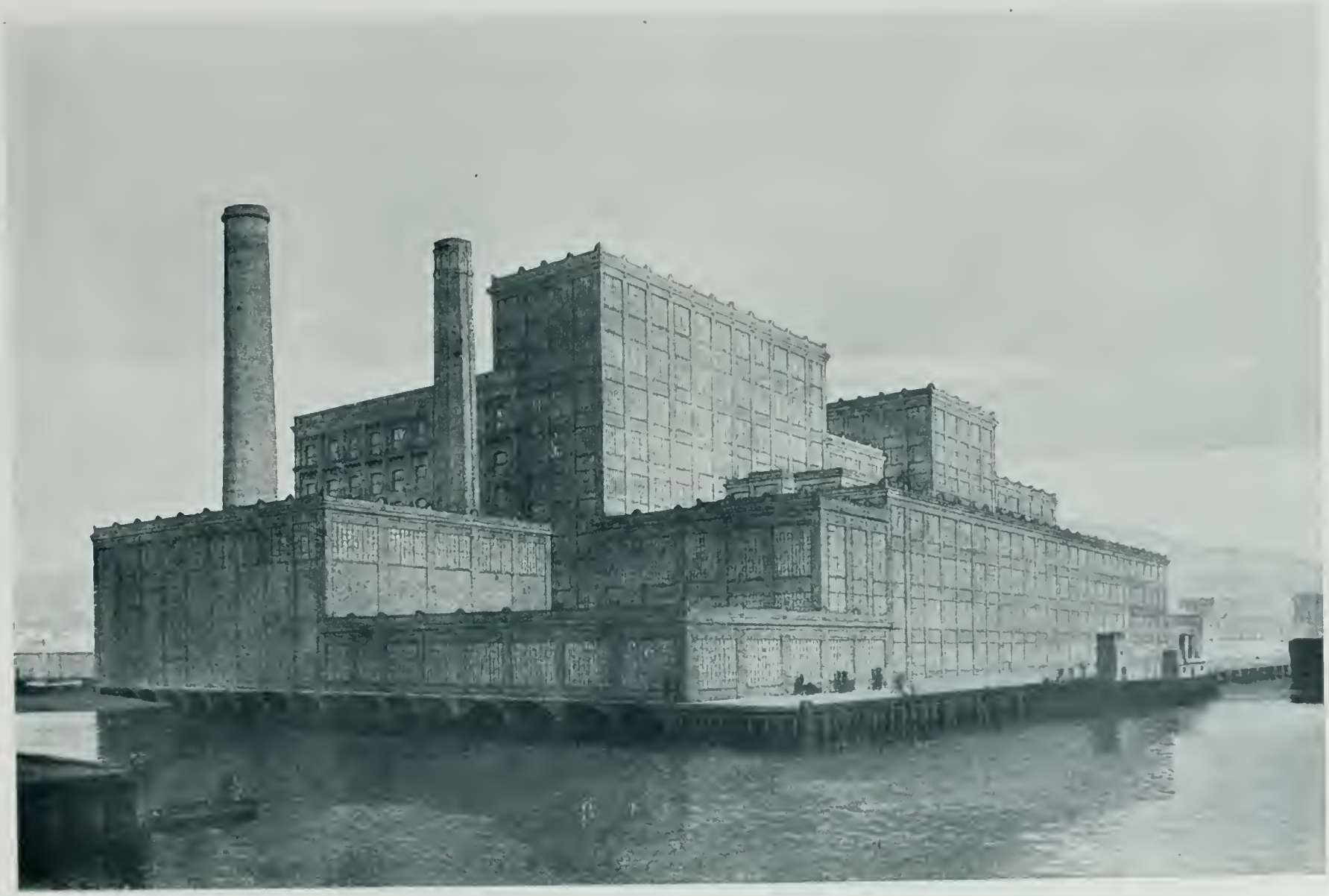
SERVICE ROLL OF THE CALIFORNIA AND HAWAIIAN SUGAR REFINING CO. CROCKETT, CAL.

A manufacturer who, through diligence, had built up a good business, but, due to the limited size of his plant, was unable to supply the demand, obtained sufficient capital to operate on a much larger scale. The old plant was abandoned and plans were prepared to build a larger one. This manufacturer, while successful in the handling of the smaller business, where every detail was under his supervision, labored under the delusion that he could manage a business six or eight times larger by the same methods. His associates advised him to obtain the services of an engineer to assist in planning the new plant, and the writer was employed. It was decided to use an individual electric drive, buying electrical energy from the power corporation. A cost statement was prepared and the item of electric motors was nearly $7000, which was the minimum price at which these motors could be obtained. Without consulting his engineer, the manager, who had in the meantime gone East to select certain machinery, wrote that he had bought his motors and had saved several hundred dollars. Omitting details, the ultimate result was that, in the hope of saving several hundred dollars, he had bought motors entirely unsuited for the work, and the expenditure necessary to adapt these motors to the conditions existing in his factory was nearly $4000. The over-all efficiency was reduced from 82 per cent. to 61 per cent., which amounted to an increase of over 34 per cent. in his monthly cost for electrical energy. This man spent several thousand dollars trying to save several hundred, which goes to prove that Emerson was right. The salesman who sold the motors made a good commission, to be sure, and although the motor manufacturer was a large concern, there was no redress from that source.

A set of plans was prepared for a complicated system of high-pressure steam piping, and bids were obtained from reputable contractors for the furnishing and installation. The owners of the plant, however, in order to save a few dollars, disregarded the advice of the engineer and employed a superintendent who claimed to be experienced in that class of work, to buy the material, employ mechanics and install the work by day labor. Thinking he could make an additional saving by deviating from the engineer's plans, and without consulting with the engineer, this superintendent made several changes in the work. Eighteen days after the plant had been placed in service the piping gave way, scalding the fireman, damaging the building and ruining several thousand dollars' worth of unfinished products.

A certain institution, in order to obtain something for nothing, decided that it would save an engineer's fee of six per cent. by having the various contractors and manufacturers furnish plans and specifications free. Each bidder was to offer a specification covering his work. Although an engineer had made an estimate of $200,000, the bids submitted with specifications ran from $130,000 to $170,000. The $130,000 bid was accepted and the work installed, but in less than one year the complete installation had to be scrapped and sold for junk, and a new installation made at the engineer's original estimate.

The alert manufacturer is ever on the lookout for means that can be employed to cut down the cost of the



CALIFORNIA AND HAWAIIAN SUGAR REFINING CO., CROCKETT, CAL.

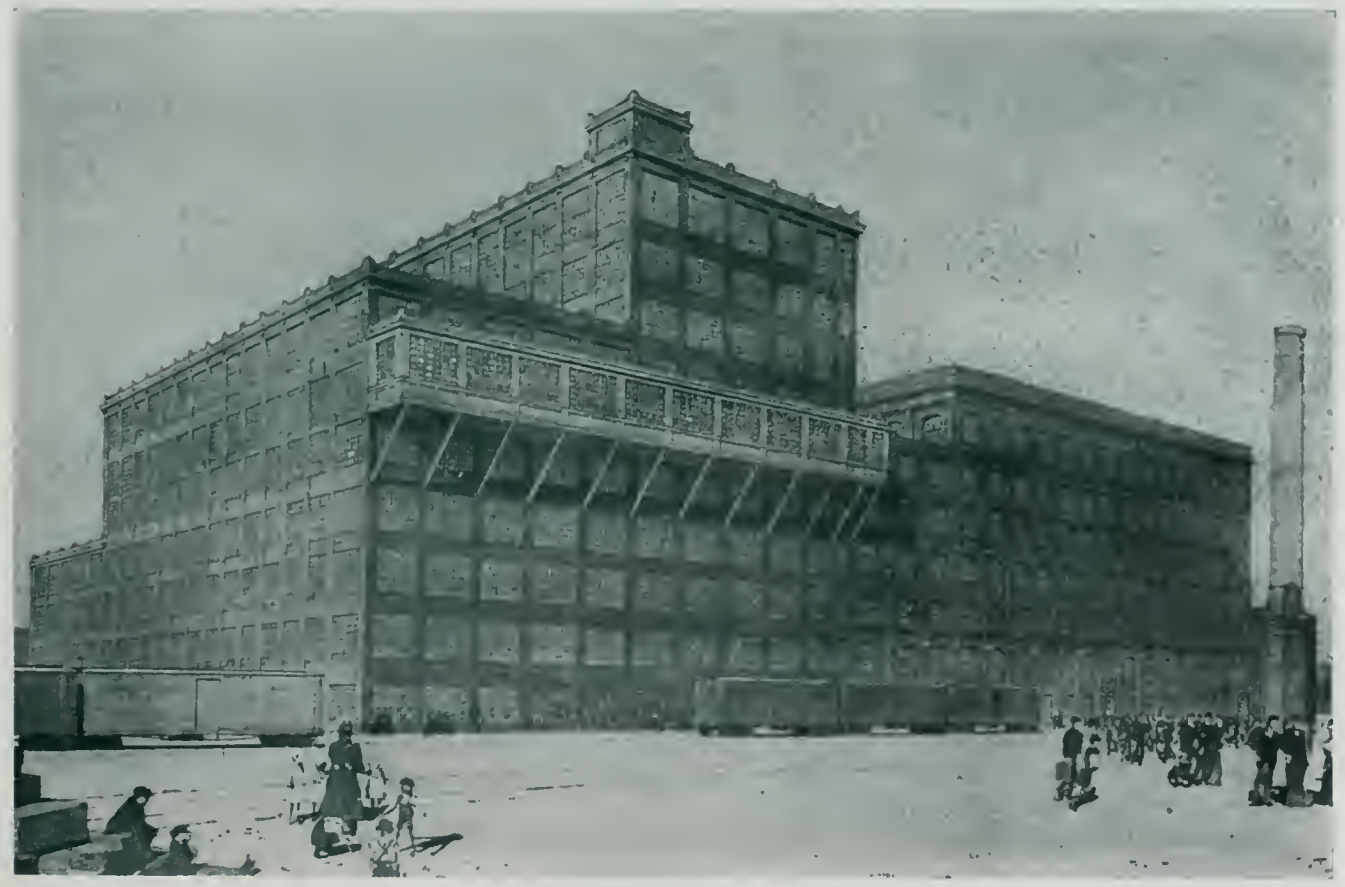
A. A. BROWN, Construction Engineer

INTERIOR VIEW

INTERIOR VIEW

BUILDING FOR THE NATIONAL CARBON CO., SAN FRANCISCO

MAURICE C. COUCHOT. Consulting Engineer



CALIFORNIA AND HAWAIIAN SUGAR REFINING CO., CROCKETT, CAL

A A BROWN Construction Engineer

HOSPITAL WARD

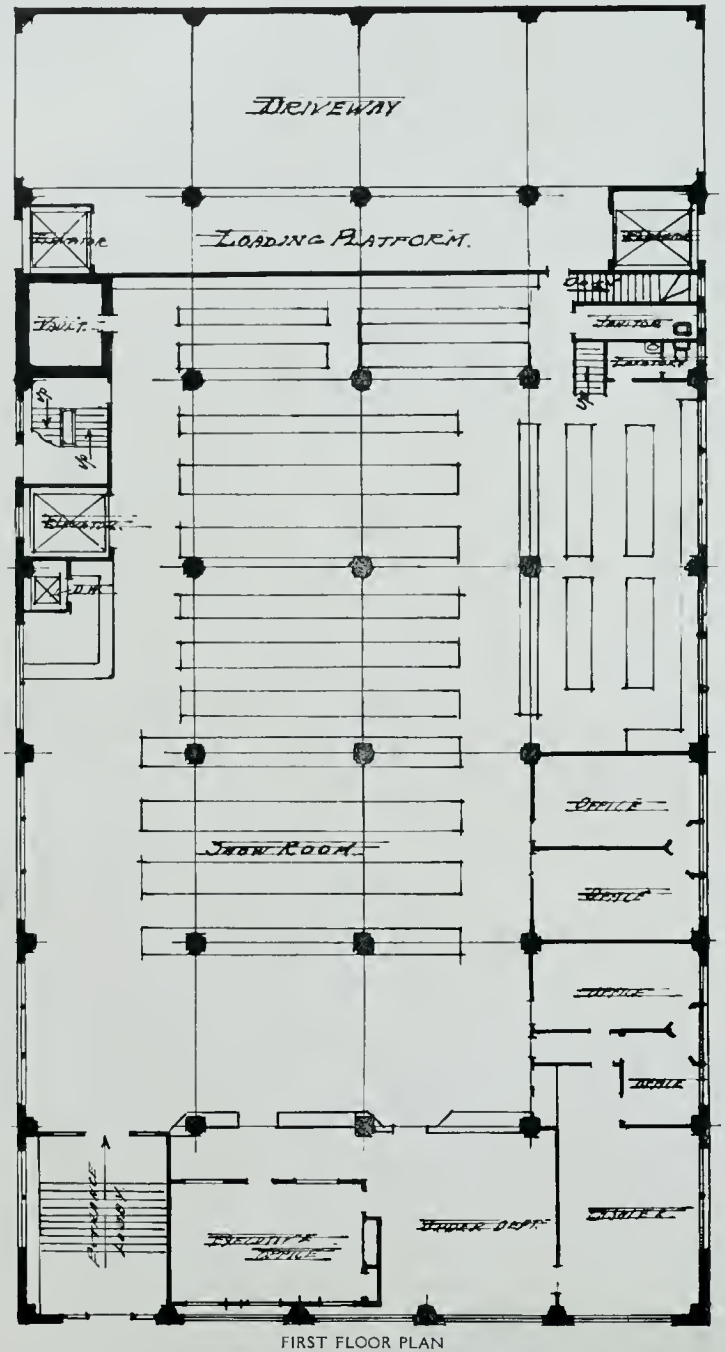
INTERIOR VIEW

BUILDING FOR THE NATIONAL CARBON CO., SAN FRANCISCO

MAURICE C. COUCHOT, Consulting Engineer

WAREHOUSE, SAN JOSE, CAL.

LABEL PRINTING DEPARTMENT, OAKLAND, CAL
CALIFORNIA PACKING CORPORATION
PHILIP L. BUSH Civil Engineer



FIRST FLOOR PLAN

FRONT VIEW

NEUSTADTER BROS. BUILDING, SAN FRANCISCO

FOR F. M. RAY, ESQ.

H. P HOYT & CO., Constructing Engineers

SYLVAIN SCHNAITTACHER, Consulting Architect for Neustadter Bros.

VIEW OF EXECUTIVE OFFICE

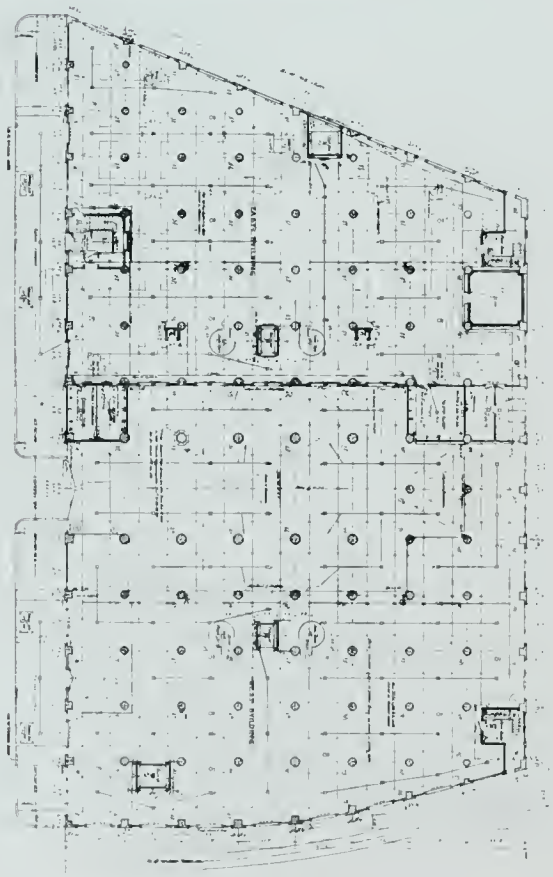
VIEW OF GENERAL OFFICES

NEUSTADTER BROS. BUILDING, SAN FRANCISCO

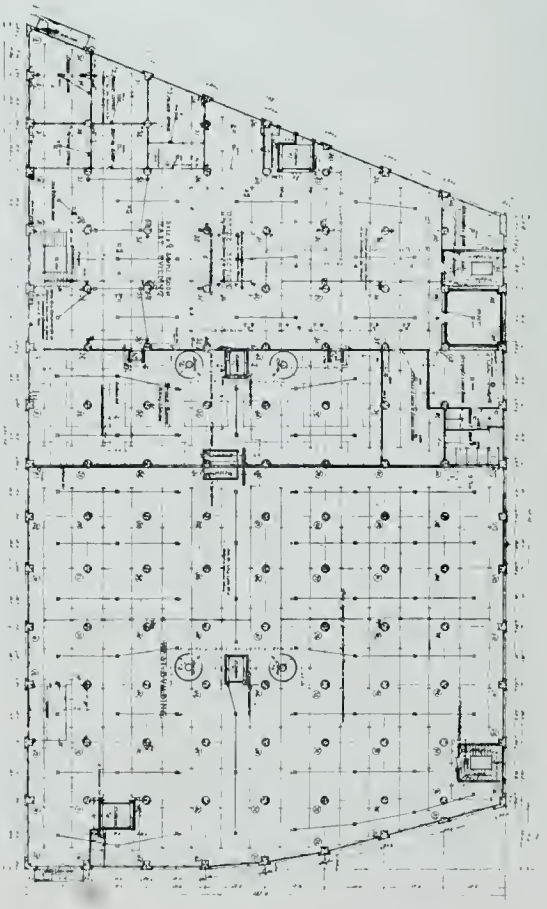
SYLVAIN SCHNAITTACHER Architect

COMMERCIAL BUILDING FOR J. D. & A. B. SPRECKELS SECURITIES CO., SAN FRANCISCO

G. A. APPLEGARTH, Architect



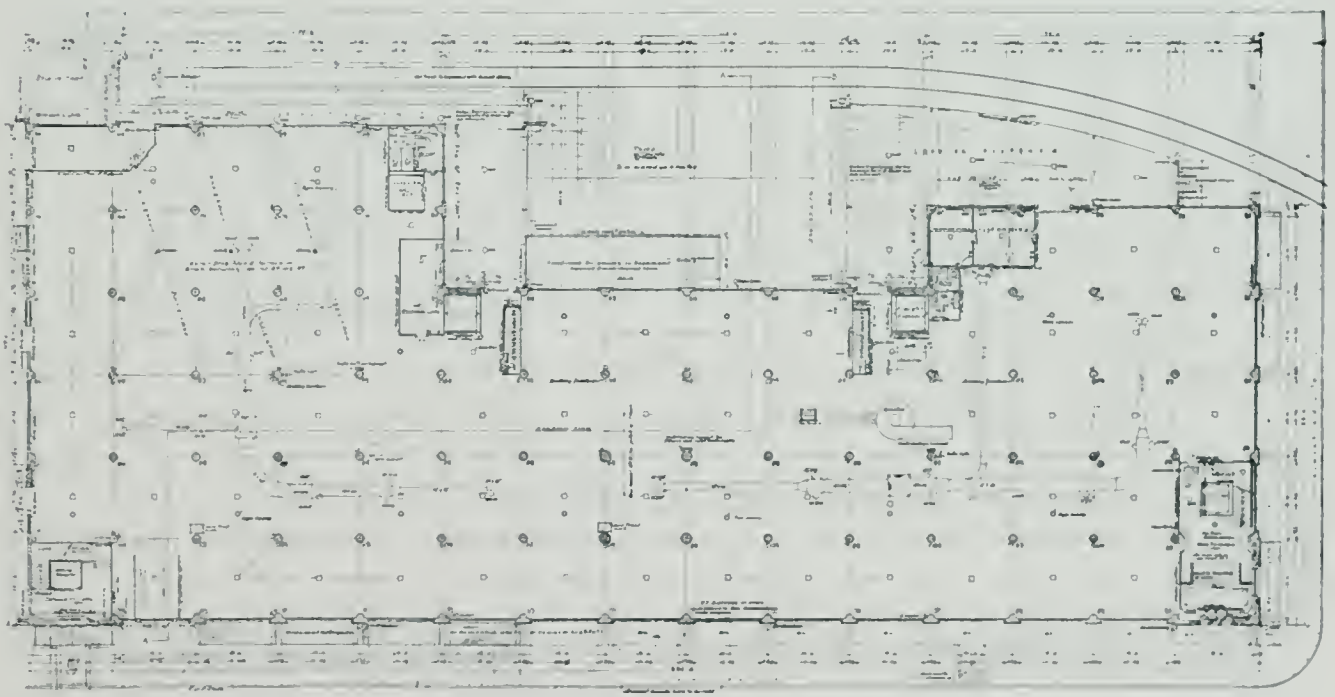
FIRST FLOOR



SECOND FLOOR

NATIONAL CARBON COMPANY BUILDING, SAN FRANCISCO

MAURICE C. COUCHOT, Consulting Engineer



FIRST FLOOR PLAN

RECEPTION FOYER

GIRLS' DINING ROOM

BUILDING FOR THE PACIFIC COAST SHREDDED WHEAT CO., OAKLAND, CAL.

LEWIS P. HOBART, Architect. CHAS. H. CHENEY, Associate

BUILDING FOR THE PACIFIC COAST SHREDDED WHEAT CO., OAKLAND, CAL.

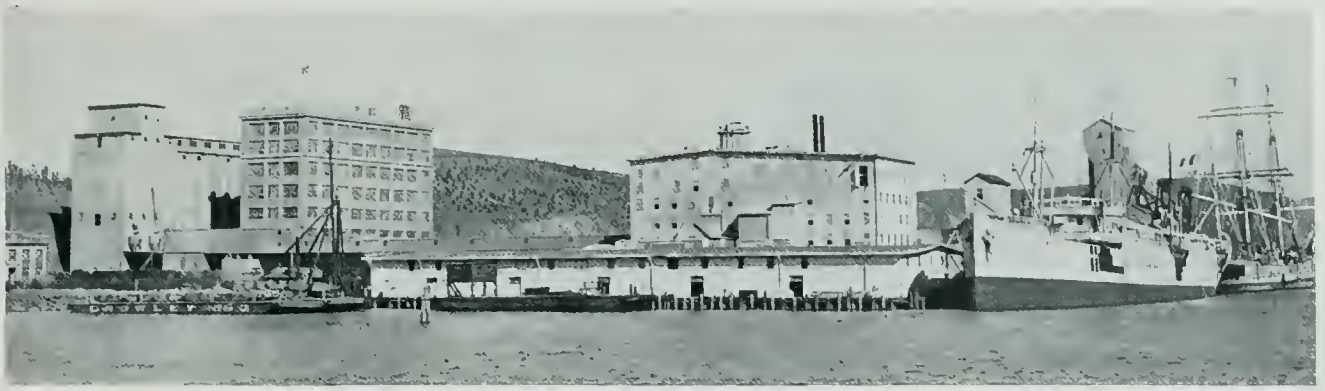
LEWIS P HOBART, Architect CHARLES H. CHENEY, Associate

BATTERY BUILDING FOR JOHN A. HOOPER, SAN FRANCISCO

KENNETH MAC DONALD, JR., Architect and Manager of Construction

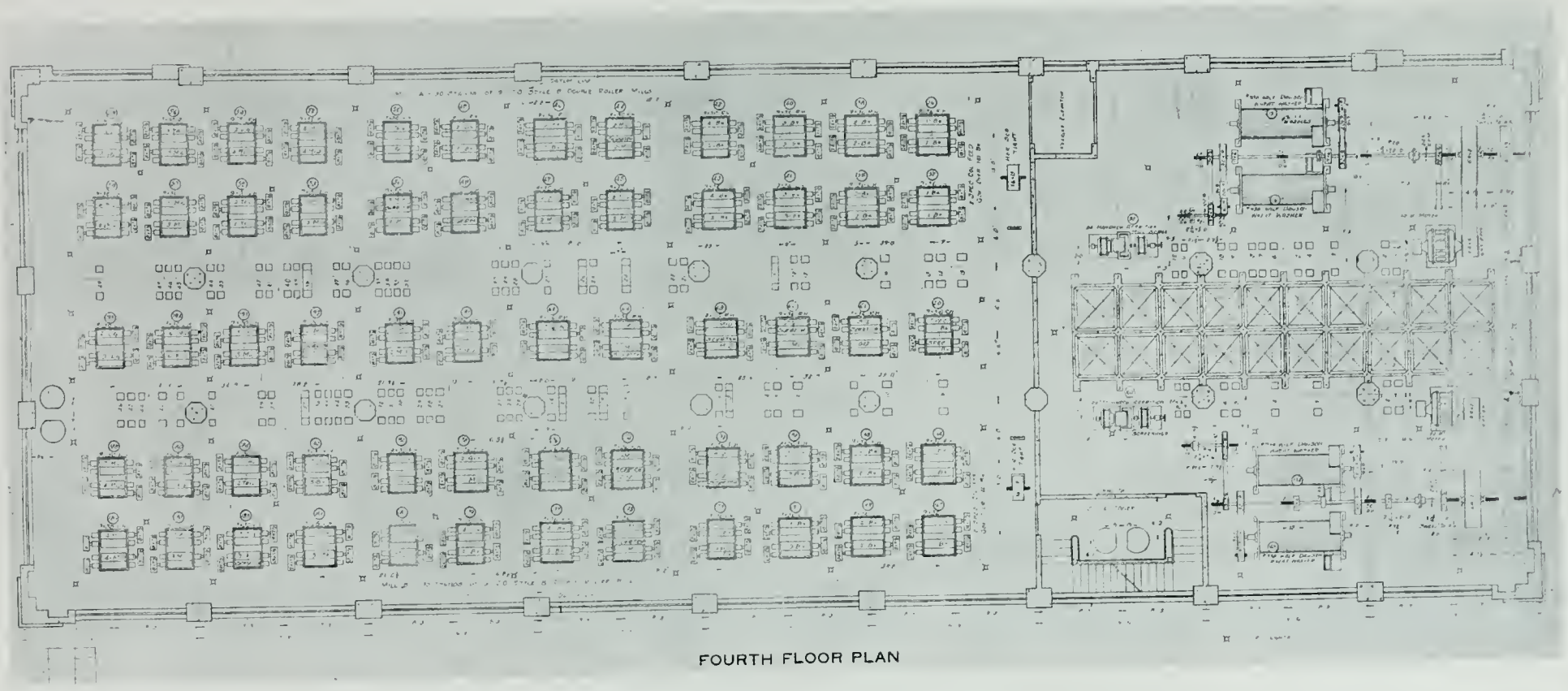
ALBERS BROS. MILLING COMPANY OAKLAND PLANT

R. M. HENNINGSEN, Consulting Engineer



SPERRY FLOUR COMPANY, VALLEJO, CAL.

MAURICE C. COUCHOT, Consulting Engineer



FOURTH FLOOR PLAN

MILL FOR SPERRY FLOUR COMPANY, VALLEJO, CAL.

MAURICE C. COUCHOT, Consulting Engineer

MILL AND WAREHOUSE FOR THE SPERRY FLOUR CO., VALLEJO, CAL.
MAURICE C. COUCHOT, Consulting Engineer

finished product. This is a legitimate saving, and, as in military operations, a large element of success is that of surprise. This can be accomplished only by keeping the enemy or competitor in the dark and by underselling him, at the same time keeping the proper balance between the manufacturing cost and the selling price, or by giving a superior article at the same price. While the first cost still seems to be the ruling factor in making a sale, the manufacturer has to face the factors of quality and reliability, especially in the matter of staple articles. Once the suspicion of the public is aroused, it is almost impossible to create confidence again. No amount of advertising space, no increase in quality, no power of persuasion will suffice to restore the lost prestige.

In almost any line of manufacturing it is a comparatively simple matter to invent labor-saving machinery, but it is a very complex matter to get the whole mass of machines and operations finally working together to the greatest service of all people engaged. Correlation is difficult to work out; all manufacturing plants are alike; each is a correlation of parts; yet there is a wide difference in the final results.

In the same town there may be numerous examples of firms engaged in the same kind of manufacture, using the same kind of machines, made by the same firms, using the same kind of raw materials, making the same kind of output, competing in the same labor market and selling in the same territory, yet one is making very large profits and the others perhaps little or none. This difference is often due to the amount of skill and foresight used in the correlation of the various parts of the enterprise. Again, labor-saving machinery may not be as economical as hand labor, when ultimate cost is considered. Many factory superintendents have found this out after advising the investment of thousands of dollars in expensive machines. A detailed analysis is not always made of the conditions surrounding certain operations; the superintendent is often carried away by the glowing picture presented by the salesman, or by the alleged saving made by competitors, or he may fail to consider that perhaps his conditions are radically different. There is a balance between hand labor and machine labor. The depreciation of the machine, the quality of the work done, and the reliability of both methods are sources of interesting study. Motion study of the worker has received considerable attention during the past ten years. Mr. Frank Gilbert was perhaps the first person to consider seriously the inefficiency of the average worker, and he has demonstrated that scientific dexterity can be attained by workers in all trades by applying the same principles that are used in training a stenographer or a linotype operator, each of whom is required to study certain motions and exercises in order to acquire the best rate of speed.

The efficiency of the various items that go to make up the operating cost can be analyzed. The items should first be taken individually and then in groups, and finally as a whole, so as to obtain a harmonious combination that will eliminate all waste and conserve mechanical and man power and reduce the wear on the equipment. The handling of raw material from the source of supply until it finally emerges as the finished product is a source of fruitful study, and the majority of industrial plants are built around the path of least resistance taken by the manufactured article in its progress. In some instances this path will require that all operations take place on one plane, while in other cases the raw material is elevated to higher planes and the various necessary operations are performed on lower planes, the product being delivered by gravity from one plane to the other and finally reaching the lowest plane for packing and shipping.

An industrial plant requiring a large amount of moving machinery driven by a steam engine, electric motor, or other source of power, faces at all times the necessity of keeping this item of operating expense at a minimum. The mere saving of fuel or electrical energy does not necessarily mean a saving in the ultimate cost. Many industrial plants have put in expensive condensers for the

NIGHT VIEW—PLANT OF THE PACIFIC COAST SHREDDED WHEAT CO., OAKLAND, CAL.
LEWIS P. HOBART, Architect. CHARLES H. CHENEY, Associate

steam plant when fuel cost was so low that the investment was not justified. Other plants have endeavored to save by the installation of individual electric drive, expensive ball or roller bearing shafting, when an analysis of the overall operating cost would have shown that although a saving was made in the energy consumption, the increased cost of maintenance, with interest and depreciation, was a decided loss. Again, an attempt is frequently made to save in the initial cost of a machine when the ultimate cost is not considered. A certain concern bought a so-called bargain in a steam engine. The president had used his own judgment, and for $18,000 he had obtained this engine, the original price of which had been $22,000. Similar engines of higher efficiencies and of the same power sold for approximately $24,000, and the firm congratulated itself on its wonderful keenness in obtaining for $18,000 a machine that should cost $24,000. Later a test and report was made by an engineer and it was shown that this bargain was eating up $10,000 a year in fuel above that which the $24,000 engine would have required for the same power output. It might be mentioned that this inefficient engine was of first-class manufacture, but was made to fulfill certain requirements that did not exist in this particular plant. A report by a competent engineer would have saved this firm several thousand dollars a year.

A system recording all operations, with the details of expense connected with same, is the only reliable method of determining where waste can be eliminated and leaks located. This is a part of every business organization. The scientific farmer now records the number of eggs laid by each hen, the feed required by each hen, the quality and quantity of milk from each cow, and the amount of feed required to produce a pound of pork. By this means he can readily eliminate the slackers, and the factory manager can do likewise. The weak links in the chain can be strengthened, the inefficient worker can be eliminated and a spirit of rivalry can be instilled into each department.

The new Ford plant is an example of what can be done by these careful records. The layout of the new plant being based on past performances, the assembling plant is one of the wonders of the manufacturing world. Here all parts of the automobile are brought together, yet there is no interference; there is no lost motion; there is no waiting; a uniform speed is observed, therefore the highest economy is maintained at all times.

It is well known that welfare work is a stimulant to efficiency, and manufacturers are coming to the realization that it is not philanthropy to keep a factory in such physical condition that the workman feels comfortable and happy in it. Friendly competitions of an athletic or other nature, bands, orchestras, annual picnics and outings and other forms of diversion now form a part of all modern factory management. Sanitation, heating, ventilating and lighting are receiving the consideration due them, and no manufacturer who expects to obtain maximum results can ignore the importance of having a clean, comfortable and well lighted premises. Proper sanitation prevents disease, proper ventilation prevents mental sluggishness and headaches and protects the lungs from dust and impurities, the proper temperature gives comfort to the worker, and a well lighted working space prevents eye strain and increases the speed of the operations. Each of the items of sanitation, heating, ventilating and lighting (natural and artificial) is an exact science and rule-of-thumb methods will not obtain satisfactory results.

The writer has met time and time again with the one great fault in connection with new industrial plants, and that is insufficient time for proper planning. Plans that should be given months of study are rushed through in weeks or days, and the owners then repent at their leisure what they planned in haste.

Architect Hart Wood has moved his office from 707 French Bank Building to 1304 Merchants National Bank Building.

NOTES ON PLATES

During the past year the California and Hawaiian Sugar Refining Co. at Crockett, California, has made large extensions to the sugar refinery, increasing the capacity from a production of 950 tons of sugar per day to 1500 tons, and now has under construction a six story char house and shops building, a four story store house and two story office building and bridge. The job, when completed, will represent an expenditure of approximately four and a half million dollars for buildings and equipment. All factory buildings are Class A construction, viz., structural steel supporting frame, concrete floors and brick walls. The office building, which is located across the tracks from the main factory group of buildings, is of Class C construction. There have been added 426,000 feet of floor area. The buildings are located over the water on Carquinez Straits. The foundations are of three general types, namely, concrete caissons, resting on bed rock; wooden piles, encased in concrete to the mud line as protection against toredos, and concrete piles.

On the completion of the new office building and entrance, the old grade crossing will be removed. Formerly all employees entering the premises had to cross the Southern Pacific tracks. With the new arrangement there will be but one entrance to the Sugar Refinery, through the office building and crossing a bridge over the tracks.

The work is being done by force account and contract. All foundation work was done by the company forces. Lindgren Company, General Contractor, C. C. Moore & Co., contractor for boiler house equipment, including concrete chimney 14 ft. in diameter by 220 ft. high. A. A. Brown, Engineer, is in charge of work under Geo. M. Rolph, General Manager.

The National Carbon Company's plant at the corner of Eighth and Brannan consists of a main building 300 feet long with an average depth of 110 feet, four full stories and basement, with a one story addition for garage and mill. The construction is of reinforced concrete throughout. The floors are designed for a working load of 250 pounds per square foot.

This building is at present one of the most modern factories in California. Every posible means of promoting the welfare of employees has been incorporated into it; it has four flights of stairs, four elevators, one gravity chute, full sprinkler system and full heating and ventilating system, and is absolutely fire-proof. The maximum area of windows to insure sunlight has been provided.

The roof of the building is used as a recreation room for the employees at lunch time. There is a dining room, hospital and ward room, and a trained nurse is in attendance. Conveniences for men and women are of the latest pattern, marble being used. Hot and cold water, showers and steel lockers have been installed.

In addition to this, every possible safety device has been installed around the machinery to prevent accidents.

The plant was designed by Maurice C. Couchot.

The new Sperry flour mill and grain storage at Vallejo is the last word in flour mill construction and installation. The new mill building is a reinforced concrete structure 150 feet long, 54 feet wide, 120 feet high, containing eight stories, six of which are entirely occupied by flour making machinery able to turn out nearly 4,000 barrels of flour per day of 24 hours. The building is entirely fire-proof and every means of providing for the safety and welfare of the employees has been installed. The very latest conveniences for men have been built.

The warehouse is a reinforced concrete structure 350 feet long, 100 feet wide, two stories high, designed for a load of 350 pounds per square foot. This warehouse has numerous conveyors to distribute products about the plant and save hard labor.

The buildings have been painted with Rice's "Mill White" and mill paint, and are kept up to the greatest degree of cleanliness possible. The grain elevator building is a reinforced concrete structure 350 feet long, 50 feet wide and 112 feet high, having a capacity of 1,000,000 bushels. The head house portion of same contains all the elevator machinery, cleaning machinery and dust collectors to prepare the grain before it goes into the mill. A 600 foot steel bridge connects the elevator and mill with the water front, over which the grain can be carried from the boat to the elevator or from the elevator to the mill, and the finished product can be carried from the mill to the water's edge.

The first portion of the elevator was designed by The MacDonald Engineering Company of Chicago, the milling machinery by Nordyke & Marmon of Indianapolis, and the mill, warehouse and addition to elevator were designed by Maurice C. Couchot.

Weeks & Day, Architects, San Francisco, have been announced as winners of the competition for the State Buildings at Sacramento.

The jury was composed of Governor William D. Stephens, Chief Justice of the State Supreme Court F. M. Angelotti, Marshall de Motte, chairman of the State Board of Control, and the following architects: Sylvian Schnaittacher, San Francisco, William M. Kendall, New York, and Henry Bacon, New York.

The competition covered two buildings, a building for State offices and a building for the State Library and Supreme Court, to be erected opposite the Capitol. The second stage of the competition was participated in by eight architects chosen in the first stage, which was judged during June of this year. Construction will probably not be undertaken until after the war.

MILL AND WAREHOUSE FOR THE SPERRY FLOUR CO., VALLEJO, CAL.

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THE ARCHITECT

VOL. XVI SAN FRANCISCO, SEPTEMBER, 1918 NO. 3

Editorial.

Estimates of American architecture (by native critics) have in large part assumed a tone of increasing satisfaction, approaching at times to complacency. And, it must be confessed, when attention is confined to the eminences the achievement is impressive. The best of our governmental buildings, national, state, and municipal; the great public utilities, such as railroad stations; our more important educational and religious institutions; the most significant of our commercial structures; the homes of the more cultured and well-to-do classes — these all constitute a body of work which, albeit somewhat lacking in coherence, certainly reveals a high degree of aesthetic sensibility and accomplishment. It is questionable, however, if the vitality of a people's art can be judged by a scrutiny of its most conspicuous attainments alone. We insist upon art as an index of culture. Certainly no adequate study of a people's life could be conducted upon an acquaintance confined to figures prominent in politics, society, and art. What validity can be claimed for an evaluation of a people's art which fails to recognize its points of contact with the people and with the practical needs of every-day life? A study of monuments may provide a measure of the eclectic cultural development of a favored minority. To gauge the vitality of our architecture as a social force we must embrace as well the factory, the warehouse, the train shed, the small moving picture theatre, the apartment house, the working man's dwelling.

An examination of American architecture which includes within its scope these popular and utilitarian manifestations reveals certain fundamental deficiencies—deficiencies which are most patent in what may be called the minor work, but which, more discreetly veiled, to be sure, vitiate much work of the first importance when measured by the most comprehensive critical standards. I refer to something more serious than the deplorably insufficient aesthetic equipment of many of our designers. A bungling attempt in the right direction is of richer promise than the most accomplished achievement of a perverted aim. I allude to defects which are radical — the artificial partition of the architectural field into "practical" and "aesthetic" categories (with the attendant assumption that they are mutually incompatible); an insufficient respect for the natures of structural systems and materials; and, in consequence, an arbitrariness in the relation between effect and means. The indictment might be reduced to even lower terms by saying, a concentration on the aesthetic to the neglect of the organic unity of architecture in its entirety.

At bottom this shortcoming probably rests upon the popular fallacy which regards art as the superaddition of unessentials, with its corollary that the introduction of art is always optional, often a matter of indifference, and not infrequently undesirable. To do justice to the lay public, I have probably erred in calling these fallacies "popular." The evidence of much of our architectural design would seem to establish them in equal degree as professional fallacies. As architects we have been preaching the necessity of beauty, and its unity. We have contended for the social doctrine that beauty is an essential in the structure of a fully realized life, and for the architectural doctrine that beauty must be one with the physical structure. That the force of circumstances has all the while operated to exclude beauty from the lives of the great masses of men, and that we have gone about designing buildings by applying superfluous ornament to the front facades of unshapely structures, is probably a reproach to our insight rather than to our sincerity. But now, when we hear ourselves reminded that architecture is not the imposition of a preconceived prettiness; that, indeed, it is an asset which even in our factories and commercial establishments we can not afford to neglect, we are startled to recognize the voice of the engineer. We have been prone to bask in our aesthetic righteousness, charging the engineer with imperviousness to the claims of spirit. But when the engineer begins to steal our thunder as well as our business, it is no time for complacency.

Yet there is an all-important step which still remains to be taken beyond the point assumed by the progressive industrial engineers and managers. Upon our attitude toward this problem will depend the justification of our pretensions as exponents of an enlightened and humane culture. That attractiveness in factories and the welfare of employees have gained recognition as desiderata is no inconsiderable gain, whatever the means and motives. It is not enough, however, that these benefits be accorded as a philanthropic indulgence; not enough that their concession be prompted by the economic interests of the employer. We must strive until all the amenities of an enlightened culture are accessible to every man by virtue of his dignity, his significance, and his possibilities as a member of human society. When this shall have been attained we may possibly witness the flowering of that new architecture, at once "modern" and "American," which a sterile aesthetic criticism has been blindly demanding, and which a self-conscious aesthetic dilettantism has been making futile sporadic efforts to invent. Our architecture, like our democracy, must be a free expansion from within outward, not an imposition from above downward.

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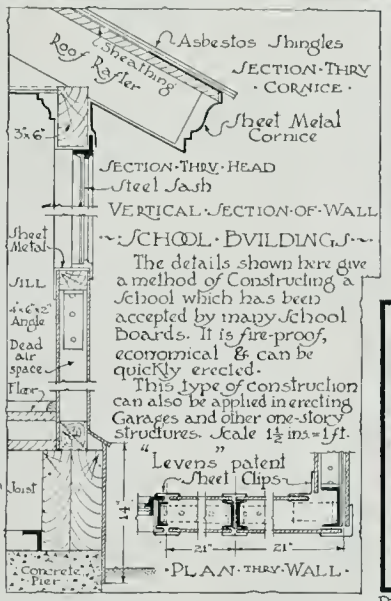

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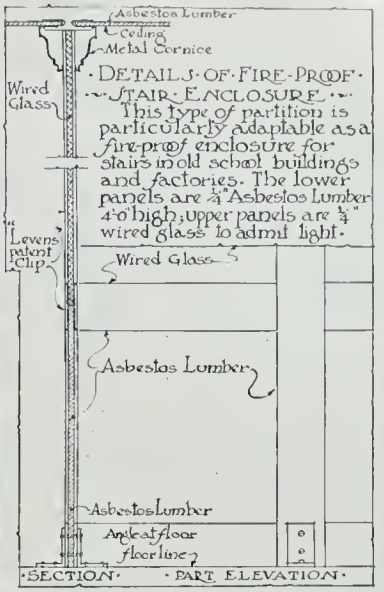
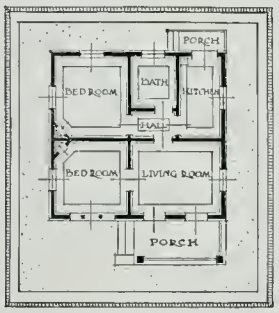


DETAILS OF FIRE-PROOF STAIR ENCLOSURE

This type of partition is particularly adaptable as a fire-proof enclosure for stairs in old school buildings and factories. The lower panels are ¾" Asbestos Lumber 4'-0" high; upper panels are ¼" wired glass to admit light.

DETAILS OF STAIR ENCLOSURE.



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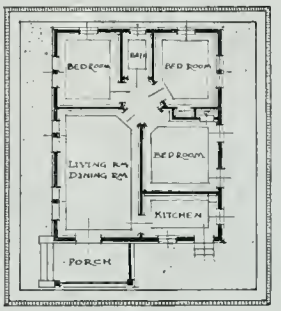
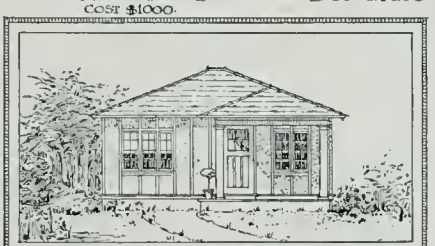
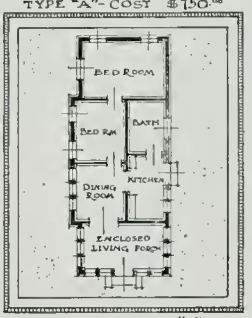


PLAN TYPE "C"
COST $1500



ELEVATION OF BUNGALOW
TYPE "B" COST $1000.
ASBESTOS LUMBER. ASBESTOS SHINGLES



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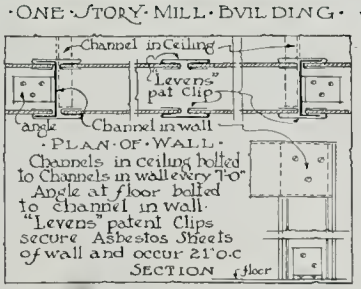
TYPE OF GARAGES ERECTED FOR THE STANDARD OIL CO. OF NEW JERSEY


Channel in Ceiling
"Levens" pat clip
angle
Channel in wall
PLAN OF WALL
Channels in ceiling bolted to Channels in wall every 7'-0"
Angle at floor bolted to channel in wall.
"Levens" patent Clips secure Asbestos Sheets of wall and occur 21" o.c
SECTION
floor

DETAILS OF DRYING HOUSE.

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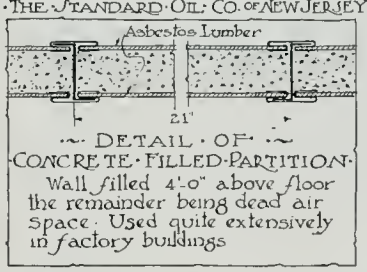
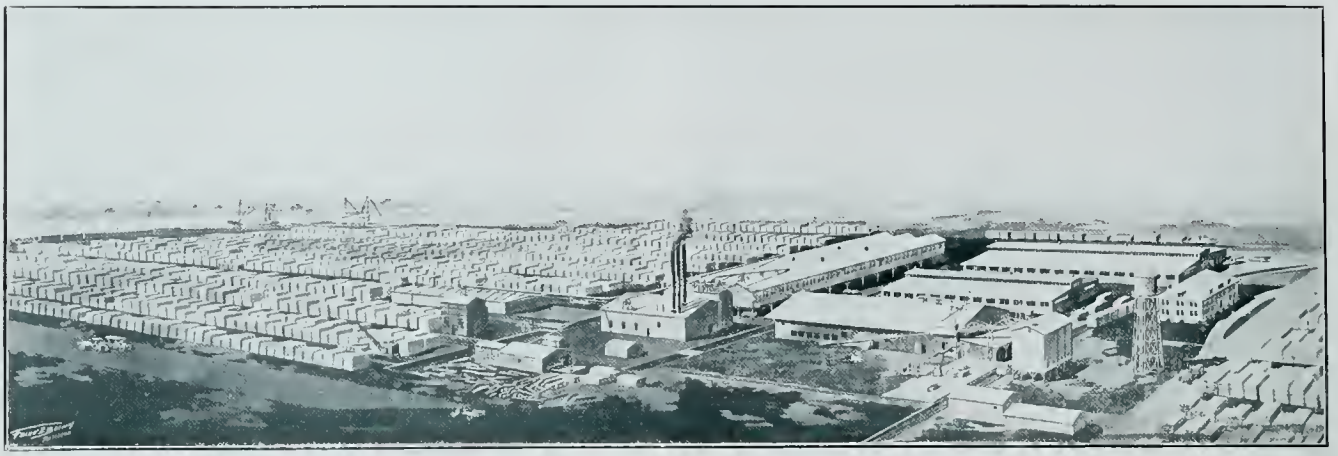


DETAIL OF CONCRETE FILLED PARTITION

Wall filled 4'-0" above floor the remainder being dead air space. Used quite extensively in factory buildings



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200	Medium	16 in.	14 lbs
300	Mogul	16 in.	15 lbs.

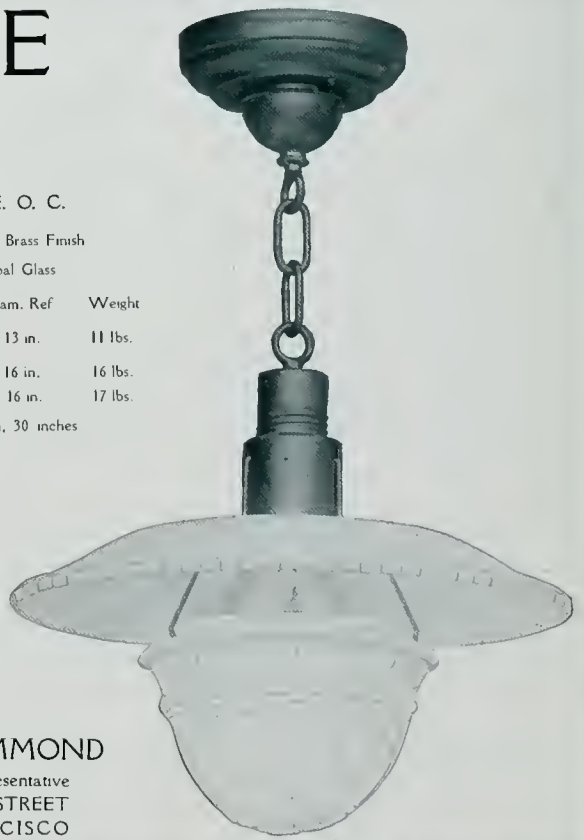
TYPE J. E. O. C.

Metal Parts, Dull Brass Finish

Reflector, Opal Glass

Watt	Recept.	Diam. Ref	Weight
75 / 100 / 150	Medium	13 in.	11 lbs.
200	Medium	16 in.	16 lbs.
300	Mogul	16 in.	17 lbs.

Standard length, 30 inches



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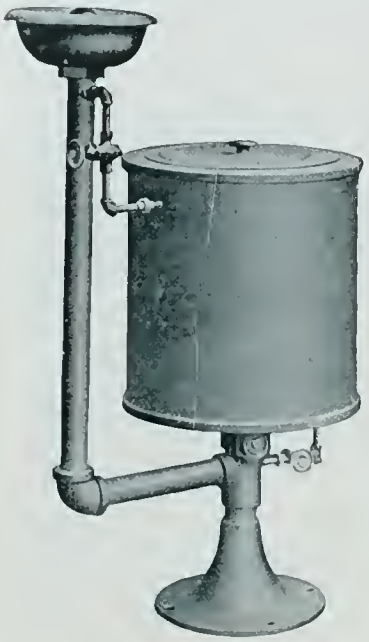

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VOLUME XVI · NUMBER 4
OCTOBER 1918

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Vol. XVI. No. 4

THE ARCHITECT

THE ARCHITECT PRESS
Publishers

IRVING F. MORROW
EDITOR

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¶ Published in the interest of the architectural profession, on the first of each month, at 245 Mission Street, San Francisco. Entered as second class matter August 4, 1911. Subscription price in the United States and possessions, $5.00 a year; foreign and Canadian, $6.00 a year. Single copies, $1.00.

¶ Changes in, or copy for new advertisements, must reach the office of publication not later than the fifteenth of the month preceding issue. Advertising rates and any other information will gladly be given on application.

¶ The editor will be pleased to consider contributions of interest to the profession. When payment for same is desired, this fact should be stated.

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THE ARCHITECT
VOL. XVI SAN FRANCISCO, OCTOBER, 1918 NO. 4

The Sacramento State Buildings Competition

By B. J. S. CAHILL, Architect

IT would be an interesting experiment, when the next important competition come up, to provide for and appoint two separate juries to sit and act in two separate cities; the plans being passed from one to the other without communication or comment. We should probably then find that each city had selected a different set of plans. Also if the same jury were to sit on the same set of plans after an interval of ten years it is quite probable that their second selection would not coincide with their first. In other words, assuming conscientious jury-men of ability and exeperience in all cases, there yet remains a margin of variability due one the one hand to personal view point and on the other to passing fashion, the mode of the moment. The personnel of the jury is a determining factor, and so is that even more inscrutable thing thing than personality—vogue.

Each competitor likely to succeed is well aware of these factors and aims with all his might to measure up to the judges' probable predilections, if known, and otherwise to do and do only the sort of thing that is "being done." To this end he keeps *au courant* with current competitions. It is really a highly specialized game and only profitable to those who are initiated, know the rules and are practiced in the requisite technique. This interesting game, however, is not all that there is of American Architecture. Some of our stronger men work entirely outside the system. On the other hand there are signs that in its ever widening scope it will sooner or later overtake and envelop our entire architectural galaxy.

At first one fears that the competition system spells the end of originality and personal expression, yet it shows unexpected scope for strong individuality, and every now and then under its rules some astonishing plunge into new fields reveals how accommodating the system may become under the impulse of master minds who have yet submitted to its ordinances and its ritual.

Apart, then, from a conscientious juror's will to select the plan most in accord with the programme there is an unconscious bias, an unresolved residuum of judgment which varies in different individuals and also in the same individual at different times. Indeed, it would take by no means ten years to change a man's views: in many cases they might conceivably change over night. In fact where judgment hangs on a hair thread, and it often does, decision one way or the other may be almost entirely accidental and arbitrary.

And it should be noted that, as time goes on and the standards of competitive drawings become more fixed, and larger and larger numbers of expert architects participate, and the problems for solution occur more frequently and come to be almost established for each type of public building, it follows that the margin of preference inherent in the plans will grow smaller and smaller and the accidental factors of the jurors' personality coupled with the vogue of the moment may assume greater importance than in cases where one set of plans obviously outclasses all others, as frequently happened in earlier competitions before the game was thoroughly established or its votaries as expert and as numerous as now.

One of the most striking features of the competitive system as now standardized and perfected is the development of the plan,—the monumental, organic, symmetrical picture plan with its infinite niceties of proportion, rhythm, major and minor episodes, axes, pochet, etc., as intricate and exacting as the structure of a sonnet or a sonata. And along with the high development of the structure of the plan (which has nothing to do with the structure of the building) has come an opposite and equivalent restriction of the design to the simple elements of one school, eclectic in origin perhaps, but now reduced to the almost unvarying composite refined "American style."

This being admitted, it follows that in any competition of a not too simple building the plan will call for more hard thinking and intensive study than the design. It is the part of the problem that challenges attention first and with its solution the section or design naturally develops. But the exterior in a large sense is made up of the conventional elements that have all been invented ages ago, and which are now applied to the conditions of the plan with what ingenuity of arrangement can be brought to bear in whatever time remains for the problem after the plan has been perfected.

Quite obviously there will be those who strive to wed telling facades to their plans, and sometimes a genius who succeeds in conceiving both plan and design which express each other in perfect beauty and fitness; but this is an ideal almost impossible of attainment, and therefore as a rule the compelling design is achieved at the expense of the perfect plan. The man who has the patience necessary to hammer out the perfect plan often lacks the inspiration to conceive the compelling design or has not the time left to develop it.

In a broad general way then, a juror's choice is also two-fold like the competition. He will lay stress on a perfect plan or on a compelling design. His personal inclination will determine which; and this personal inclination will be also unconsciously swayed by the thing in the air which we have called the mode of the moment, but which in the present instance might be called the mood of the moment. I allude, of course, to war and war conditions.

Now it is a curious thing that the business man, the layman, the inexpert hard-headed citizen, if put on a jury will generally lean to the compelling design as far as he can recognize it. Personally I think he is right because he is following a fundamental impulse of the human race.

This is indeed, the whole end and function of beauty. Oddly enough the professional architect as a juror, especially one who is known himself to be a creator of compelling designs, will often favor technical rather than inspirational efforts. It would be a nice psychological problem to show why a scientific expert prefers to go on record as an art critic or why a designer of established reputation, when called upon to exploit his accredited faculty, will insist on exhibiting his scientific side only.

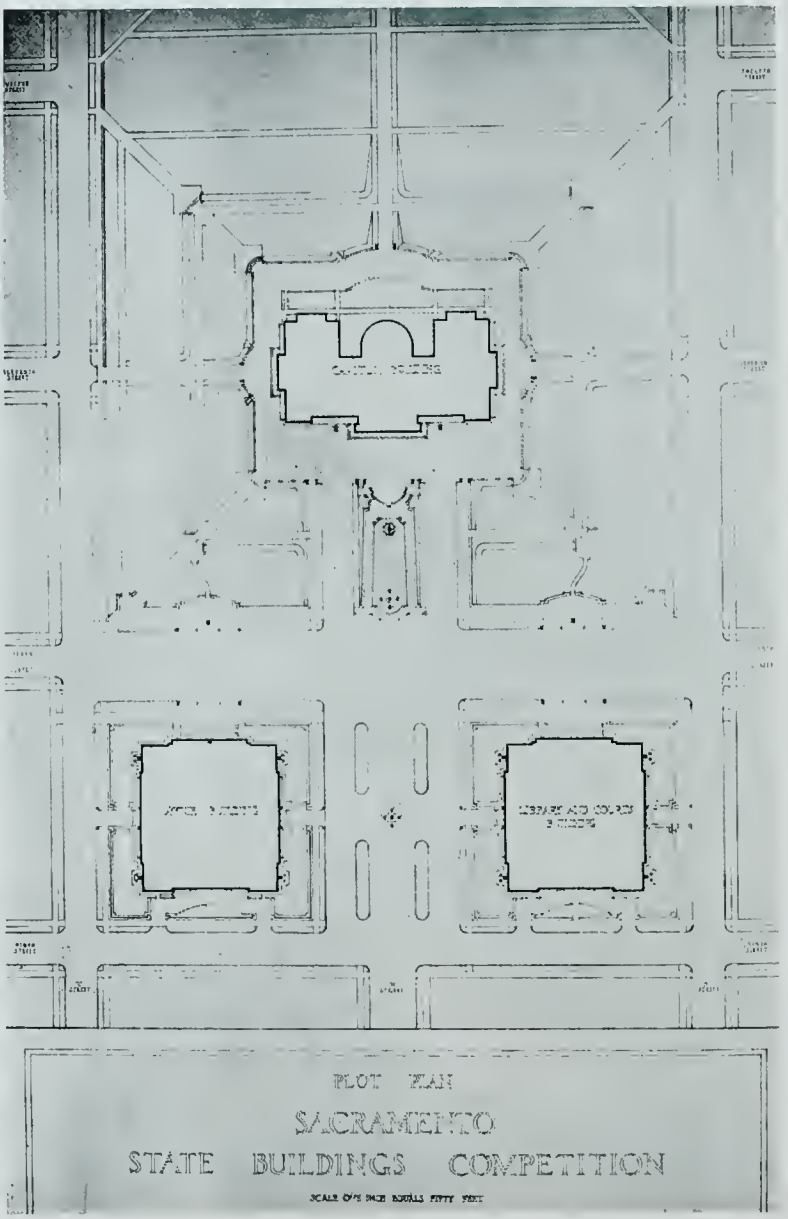
Over and above these subtleties of human judgment at the present time is the shadow of the Great War. When the Hun is at the gate everything must be dropped instantly that does not contribute to the one sole end of existence until the danger has passed. War makes enormous demands on plain practical construction, while Architecture goes into eclipse. This has led some of our engineering friends to imagine that there is to be no more architecture. Absured as this contention actually is there is no doubt that for the time being we not only refrain from building monumentally until the war is over but we find difficulty even in considering monumental design for a future date other than in the sense of cheap ready-made vestiture to cover the more obvious needs of practical planning upon which the temper of the times lays such compelling emphasis.

These considerations in general may help to clear the atmosphere over the field of the recent architectural contest and make plain why there was victory in one case and why there was defeat in others.

* * * * *

The State Library and Office Building competition called for a pair of buildings to be set on separate blocks, opposite the State Capitol at Sacramento. They were to cost about $3,000,000 and architects were admitted to the competition from all over the country. This surely was a mistake. Of all things, State buildings which are exclusively devoted to state institutions and all that goes on within state boundaries should be designed by architects within the state and built by contractors and of materials both in and of the State, else how in any complete sense can we call them State buildings? Do we invite our governors and officials from all over the federal map? If the reader will think it over from this angle the absurdity of the matter will sooner or later come right home to him.

Sixty four architects responded and among them were some of the best known firms in the country beside those who came in among the eight selected for a second contest.Such firm names as Palmer and Hornbostle, John Russell Pope, York and Sawyer, and our own Bakewell and Brown will give a forceful idea as to the class of talent that engaged in the contest and will show that the winners had a hard run and no easy victory. The eight firms chosen for the final contest were the following: Dennison and Hirons, James Gamble Rogers, and Tracy & Swartwout, all of New York; Wm. D. Hewitt and Percy Ash, N. C. Curtis associated, of Philadelphia, Adolf Scherrer of Indianapolis; Bliss & Faville, Ward & Blohme and Weeks & Day, all of San Francisco.



SACRAMENTO STATE BUILDINGS COMPETITION
Plot Plan (Winning Design) Weeks & Day, Architects

The Architectural Jurors in the final were Wm. M. Kendall and Henry Bacon, both of New York and Sylvain Schnaittacher of San Francisco. There were others on the jury but the selection was made exclusively, as is usual, by the architects and not by the laymen, although the State Librarian, Mr. Ferguson was called in for his technical concurrence.

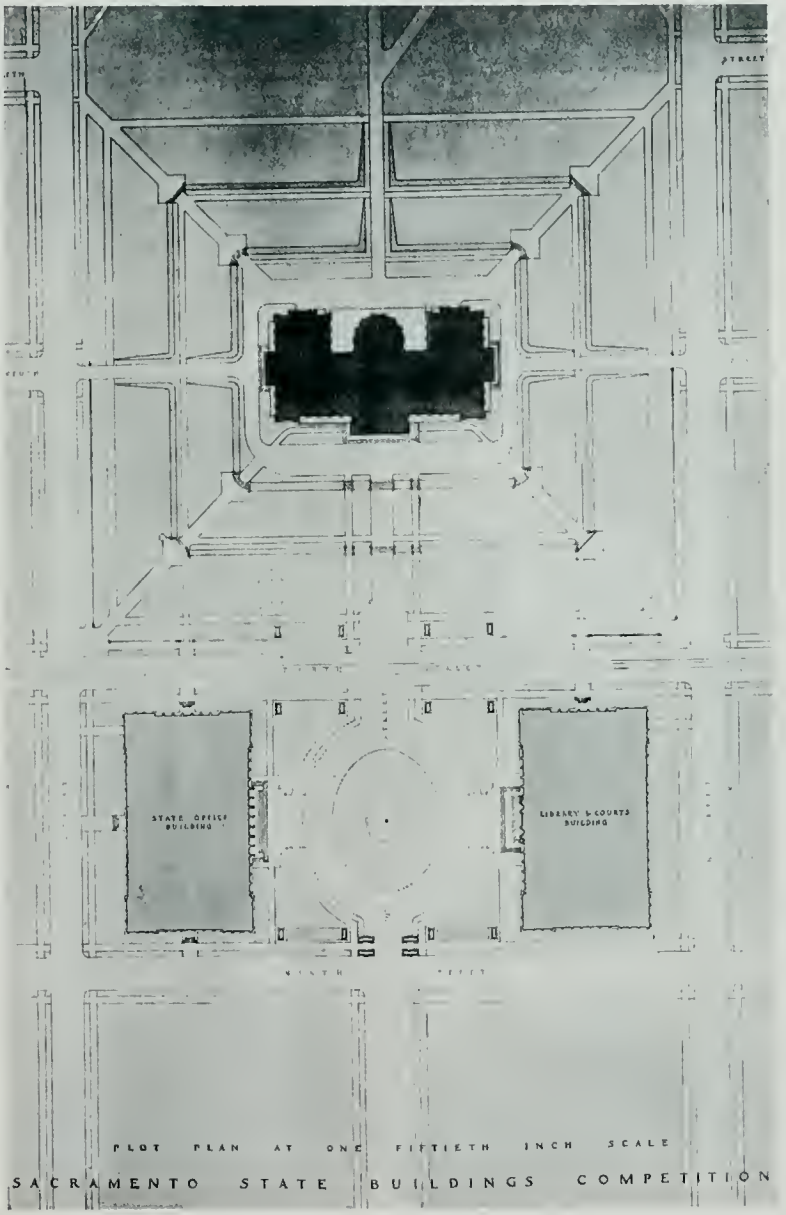
The buildings were for the State Library and Law Courts on one side and an office block to house various State Institutions on the other. With quite a limited opportunity to go into details the writer cannot escape the conviction that the award was made on the plans and on the admirable way in which the rather complicated conditions of the programme were reduced to very simple, orderly and clean-cut arrangements that would seem very

difficult to improve upon, except in some minor details upon which we shall be rash enough to comment later.

Since both buildings were to flank the main axis of the State Capitol it became at once obvious that they should balance each other in bulk and in general form. Seeing that the Library was the less flexible by reason of its large subdivisions, this building had to be worked out first and the resulting envelope imposed on its mate with the necessary minor modifications. But this did not mean that the office building should be nothing more than a hollow rectangle in outward simulation of the Library.

An office building in a commercial sense is quite a different thing from an office building in a bureaucratic sense. In the first instance the units for rental to each tenant are almost as numerous as the rooms, and the public must have direct access to practically all of them. If one tenant takes ten rooms these may, of course, be grouped or integrated but any such tenant is liable to move out, leaving his space to be occupied by single units. Therefore, this type of office building calls for continuous corridors feeding each and all of the office units.

But an office building for State Institutions, although it takes the same name, is in essence quite a different matter. The floor space on which business is to be transacted must be divided permanently into large groups calling for a number of rooms and subdivisions. The public has a limited intercourse with a part only of each group, while the bulk of intercommunication is between different parts of each group, so that the isolated office fed from a common corridor does not obtain in this building at all.


STATE OFFICE BUILDING
LIBRARY & COURTS BUILDING
PLOT PLAN AT ONE FIFTIETH INCH SCALE
SACRAMENTO STATE BUILDINGS COMPETITION

SACRAMENTO STATE BUILDINGS COMPETITION

Plot Plan — Bliss & Faville, Architects

Messrs. Weeks & Day, the architects who won the competition, have solved this problem very ingeniously by bringing the public to a common center with four short but broad aisles leading thence to the center of pavilions enclosing the whole block. By this arrangement, aided with suitable and permanent legends of direction, the public can find its way directly to the main headquarters of the various bureaus. And at the same time these bureaus are not drawn out into long strings of rooms, themselves often split again into long subsidiary corridors parallel with the main corridor. This arrangement makes for privacy and concentration in each bureau, and does away with the long corridors necessary in a building rented to single tenants requiring only a room or so apiece. How well this system is worked out reveals itself instantly on the plans. On the second floor the four broad hall-ways lead most conveniently to the following correlated groups: the first leads to the Department of Weights and Measures and the Reclamation Board; the second, to the right, leads to the Social Insurance, Labor Statistics and Industrial Welfare Departments; the third leads to the Fish and Game, State Dairy and Market Commissions; the fourth to the Department of Forestry, Viticulture and Horticulture. On the third floor the same logical arrangement obtains. The first hallway leads to the Civil Service Commission; the second to the State Board of Health; the third to the Dental, Veterinary and Lunacy Commissions; and the fourth to the Department of Public Instruction and State Board of Education. Similarly the fourth floor's quartet of radiating halls leads first to the Adjutant General, second to the Highway Commission's Headquarters, third to the Division Office of the same and fourth to the Department of Corporations and the Water Commission. The fifth floor, away from the noise and with the maximum of light, is given over wholly to Architecture, Engineering and Surveying.

The central Lobby with its eight elevators suggests a monumental treatment in section but as floor space at each story is the essence of the arrangement we feel that this feature is rather overdone on plan. Moreover

More About Competitions

By Charles Sumner, S. F. S. A.

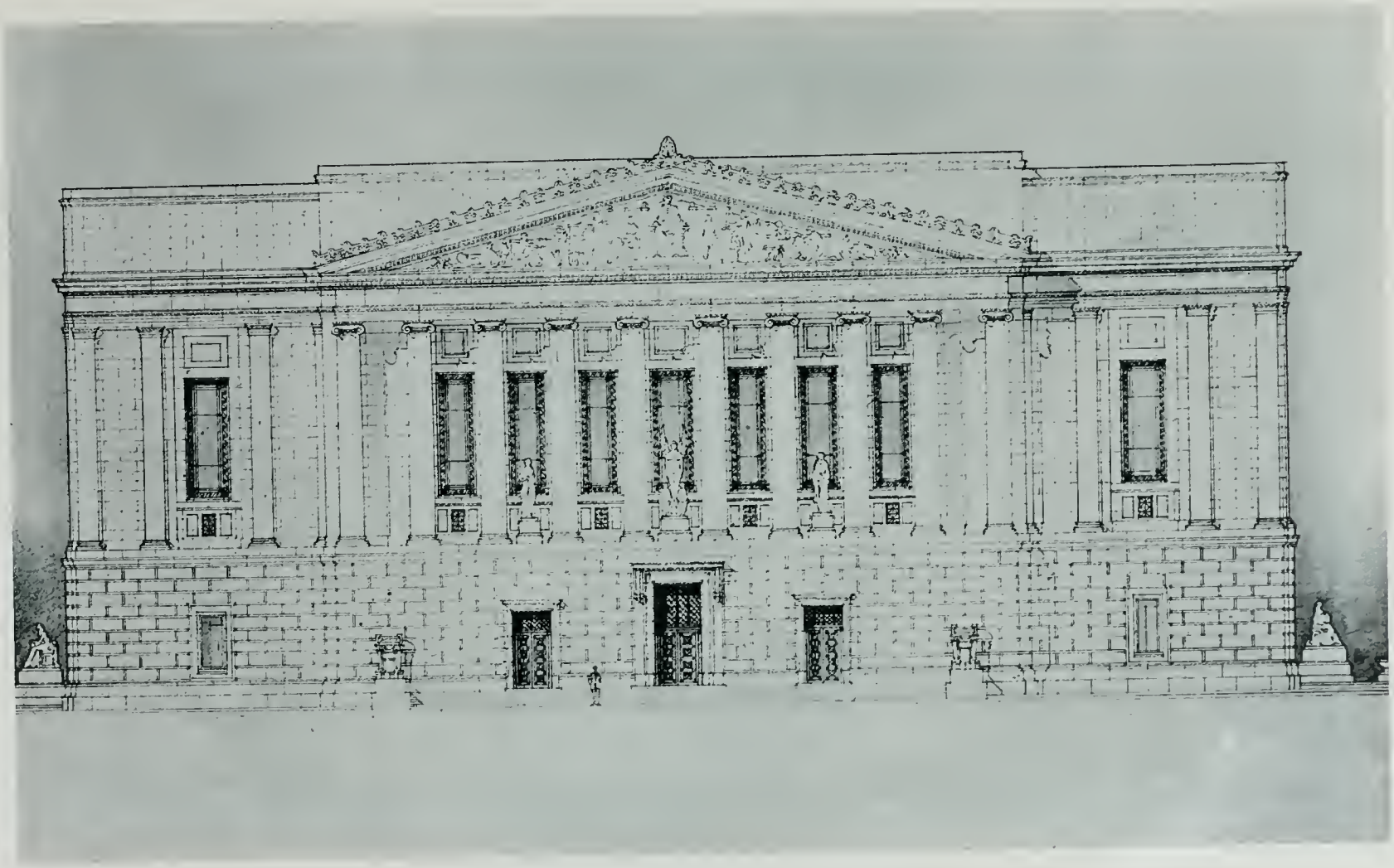
WHY, of all superfluous things, should one attempt to say anything more about competitions? Not only would the subject seem to be worn threadbare, but it seems most trifling while the great bloody competition between the forces of light and darkness is going on. Even as concerns our normal, peaceful practice it might seem barren as well. For, naturally, as the average achitect almost never becomes a winner, the competition can have but a secondary place in his scheme of things. Still less may the inveterate dabbler in competitions (and many of us are just that), the money-minded slacker, the vain but miscalculating plunger, or even at times the real genius, reasonably expect his fond hopes to materialize in substantial recognition or reward. The competition is for the great majority of us purely a self-delusion and a snare—a pleasurable but brief and expensive excursion to an architectural fool's paradise with a soothing school-made atmosphere and appropriately deceitful entourage rendered with shades and shadows in India-ink wash. So it might seem excusable, even if unprofitable, to grapple the subject in a dour vein and vent disgruntled feeling without end upon the pitiful objects of scorn who usually misconduct such enterprises.

But that is precisely what I cannot do. For, quite aside from the circumstance that I am one of those unfortunate persons who are utterly, incurably and almost helplessly fascinated whenever a good competition is in sight, I believe that the architectural competition has fully justified itself, in spite of its seeming futility; that, as an instrument, it has been greatly elevated in dignity and usefulness (for which we may thank the American Institute of Architects); and that the advisors and conductors of most of our competitions are more to be commended for what they have achieved than censured for what they have failed to accomplish. Even in war time the competition, provided the object be worthy, may be part of our inglorious home job of "carrying on." On the other hand I am confident that the conduct of competitions may still be vastly improved, in spite of all the limitations necessarily involved and all the frailties and shortcomings of human nature which seem to block the way. Not to be crabbedly critical, therefore, but to give some slight impulse to further improvement, is the motive for the little I shall say.

While the relation of the competition to progress in our art itself is a matter open to discussion, I think we can agree that the competition has indeed justified itself on the whole, and that it has been of distinct service both to the public and to the profession; that is, of course, when judiciously conceived, and in its legitimate place. Ordinarily there is no excuse for competition where private interests are paramount. Here the personal reaction alone precludes such a method of selection, quite aside from other considerations. This is also largely the case with corporate enterprises, especially when control is closely held and personally centered; although competition has occasionally been resorted to by corporate interests to their undoubted advantage. But for public work, which should be at once the most splendidly conceived and the most impartially assigned, work for which and in which we are all virtual sponsors and shareholders, selection through competition alone would seem to accord with our ideas of democratic government. An architectural competition, if properly managed, is the very essence of genuine civil service, with the added feature that all the papers will be laid on the table and the likelihood that someone, at last, will rather promptly get a "job." I do not undertake to defend the economy of the method, for democracy as we konw it is by no means economical or efficient. Nor do I forget that high professional distinction and unselfish public service will sometimes compel official recognition in the direct assignment of important commissions. Governments, as well as individuals, can be properly decent and appreciative. And we cannot blink the fact that base and selfish motives may find almost as free an outlet in a misconducted competition as in the most outrageous "political" appointment. We need not pause to condemn such motives, nor need we turn aside to dissect the dual purpose of the public competition and draw the logcal conclusions. It is the outcome rather than the application of competitive method whch concerns us now; and no one who has followed American public competitions in the past can deny that they have brought forth the most splendid, as well as oftentimes the most interesting and unexpected results. Their excessively conservative influence in fixing architectural style, which some thoughtful students deplore, seems more than offset by the infusion and spread of original ideas which they have promoted.

So the public, as well as the successful competitor, does indeed come out ahead. For the average architect's part in the game, too, there is something to be said, little as he seems to get out of it. His self-deception usually turns rather quickly to healthy if not happy self-revelation. Tumbled from his fool's paradise, his feet are apt to be all the more firmly planted when he gets back to earth again. He will be, in fact, better grounded in his art; for, wretched and unworthy of himself as his effort may have turned out, he will have been lifted from the sordid rut for the time being to a higher and finer point of vantage. And who among us would willingly forego the stimulus of the big problem, with its call for intense mental exercise, for sober reasoning combined with almost hilarious imaginative creation; the joys of cooperation; the re-awakened spirit of office loyalty and pride; even the element of uncertainty involved, often so pitifully slight—the sporting chance! Let graybeards decry competitions as they will; the wider public will still gain, and these foolish, intangible things will probably always compensate even the unsuccessful competitor for the wastes and abuses which he seems compelled to suffer.

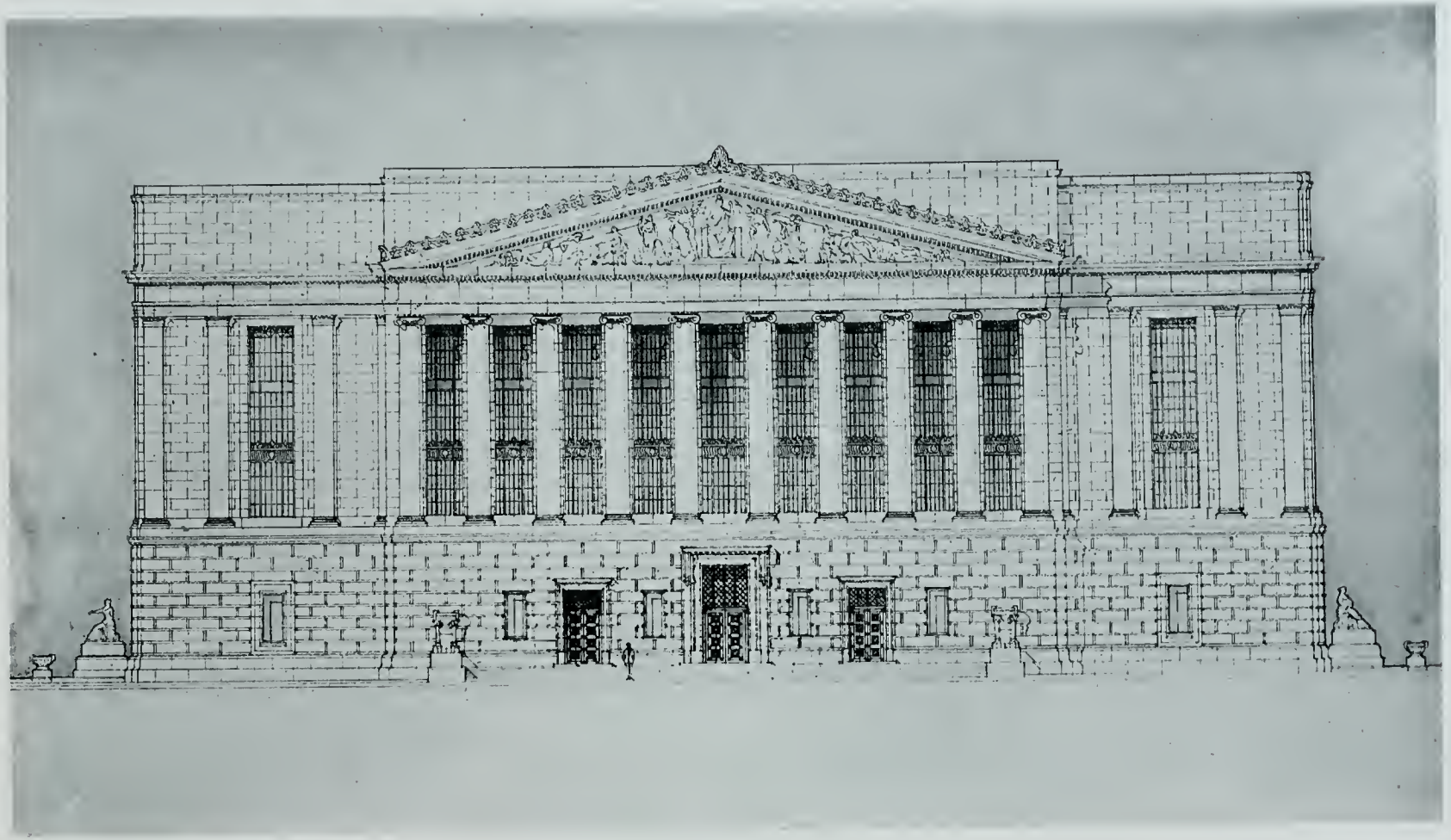
For, as every competitor realizes, the waste and lost motion in the average competition and the slightness of the losers' compensation make it an inordinately, almost a criminally expensive game; one which, taken collectively, is a shining example of the dissipation of human energy. The hopeful point is, that much of the waste and many of the deficiencies of our competition practice



SACRAMENTO STATE BUILDINGS COMPETITION
(Winning Design)

Front Elevation of Library and Courts Building

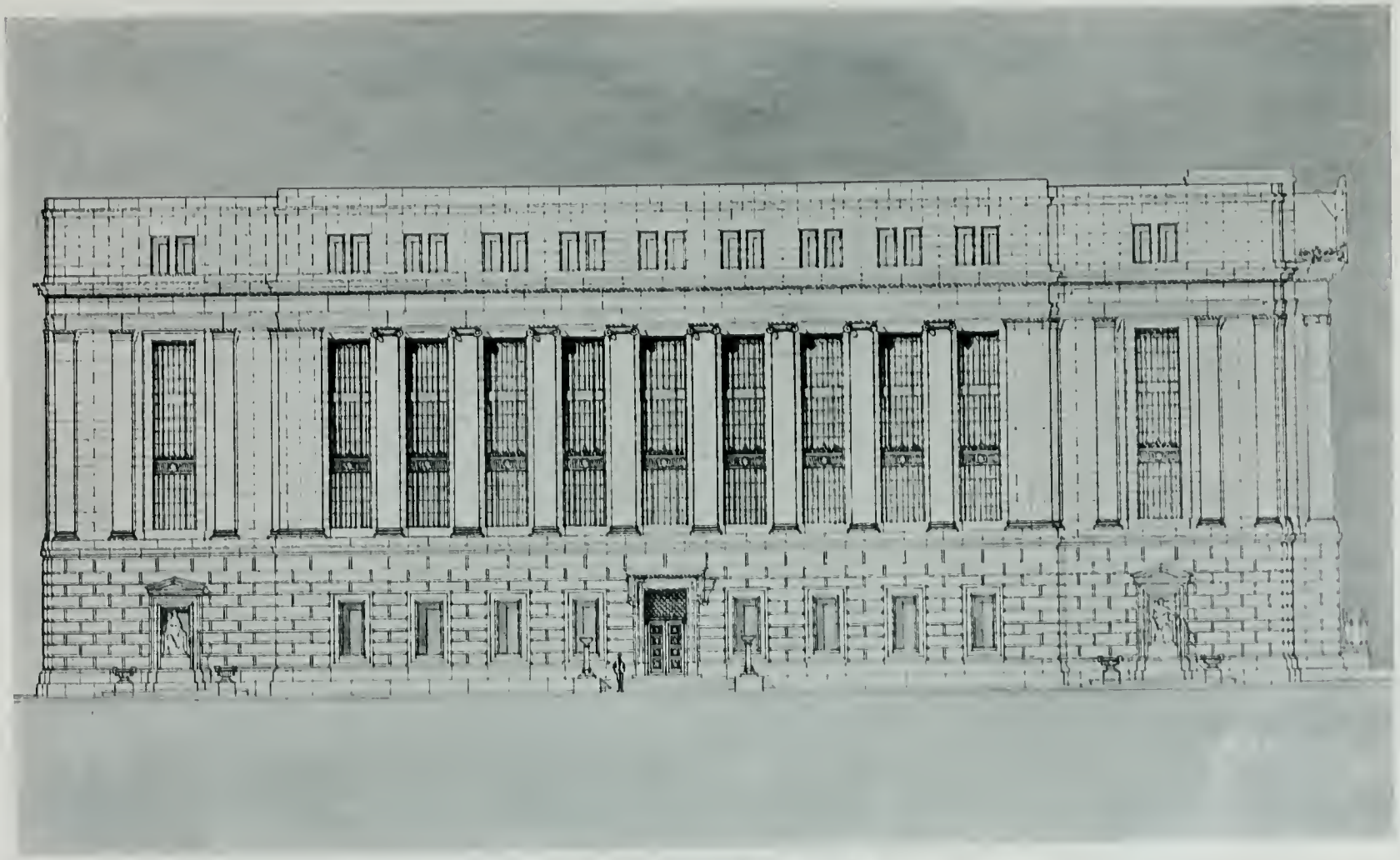
Weeks & Day, Architects



Sacramento State Buildings Competition

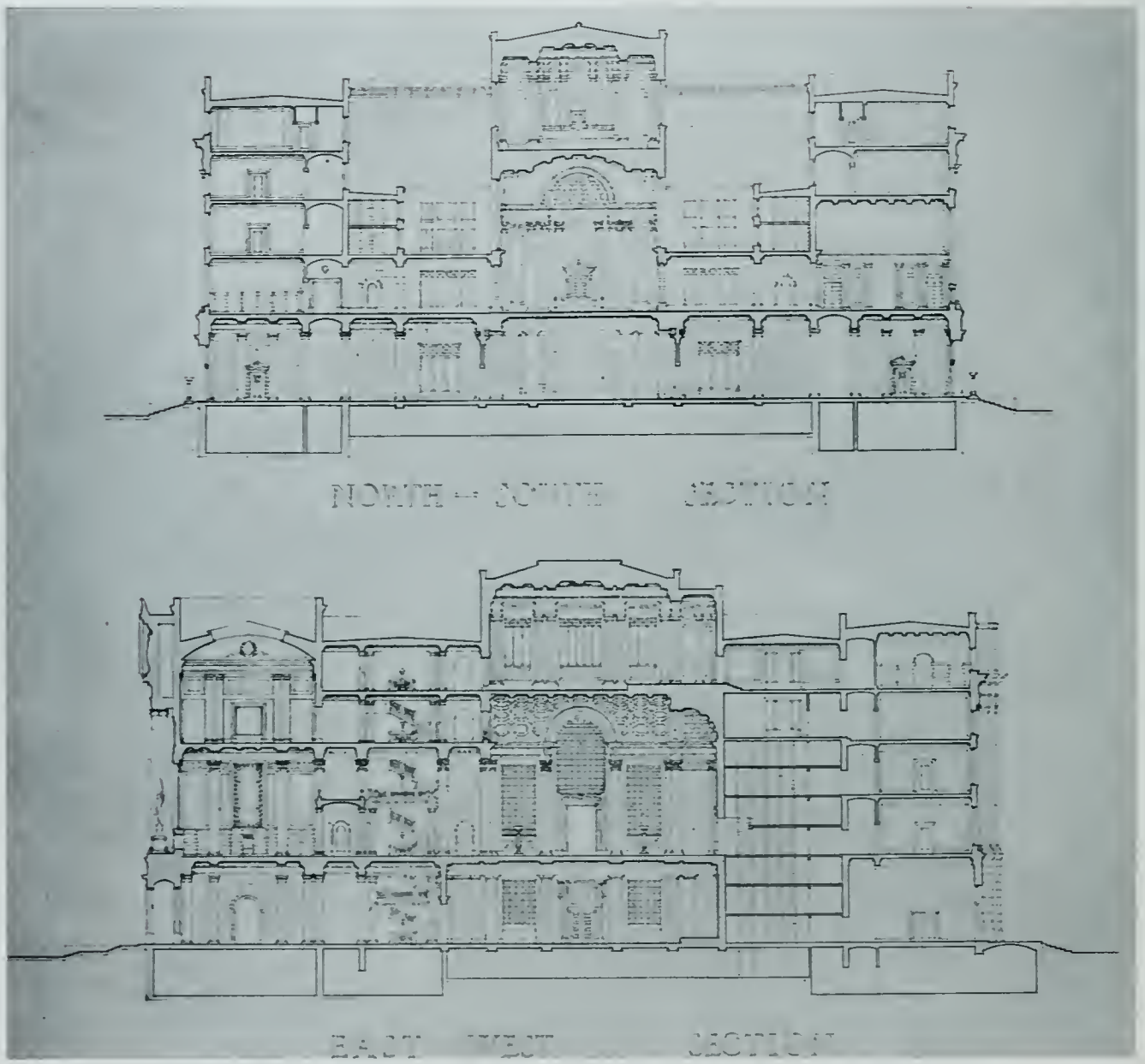
FRONT ELEVATION OFFICE BUILDING
(Winning Design)

WEEKS & DAY, Architects



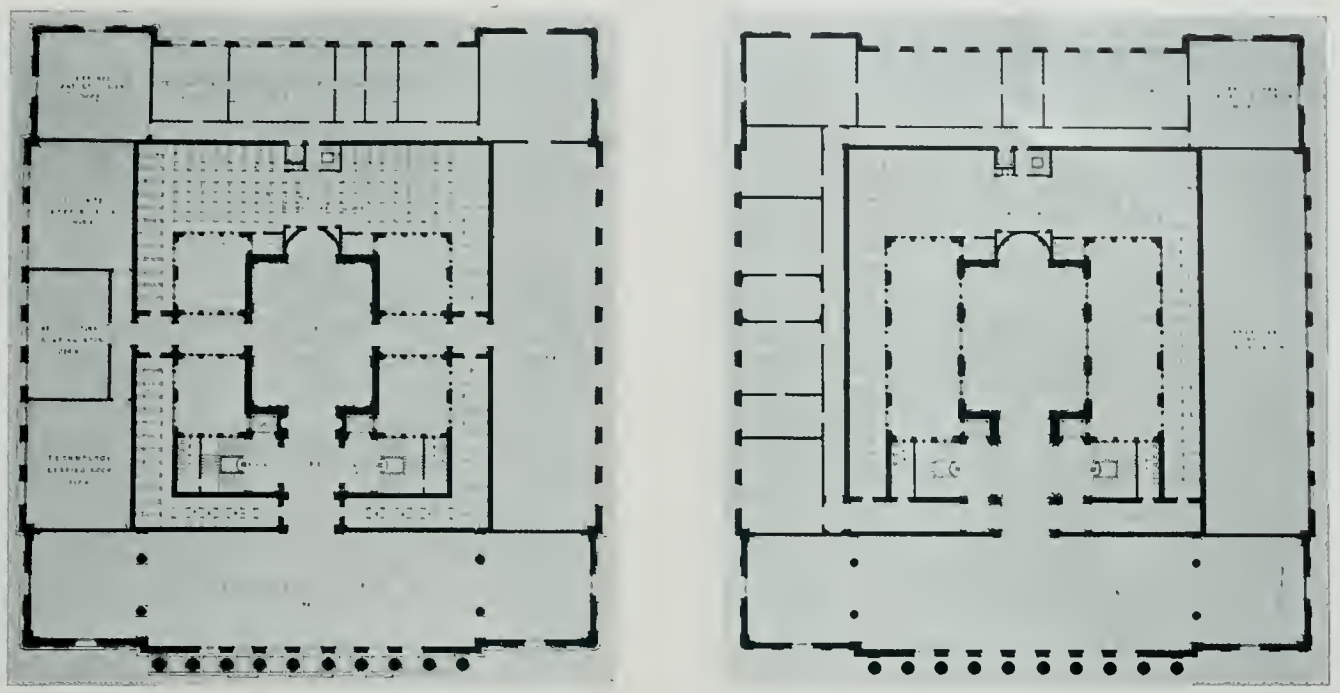
SACRAMENTO STATE BUILDINGS COMPETITION

Side Elevation of Office Building (Winning Design) Weeks & Day, Architects

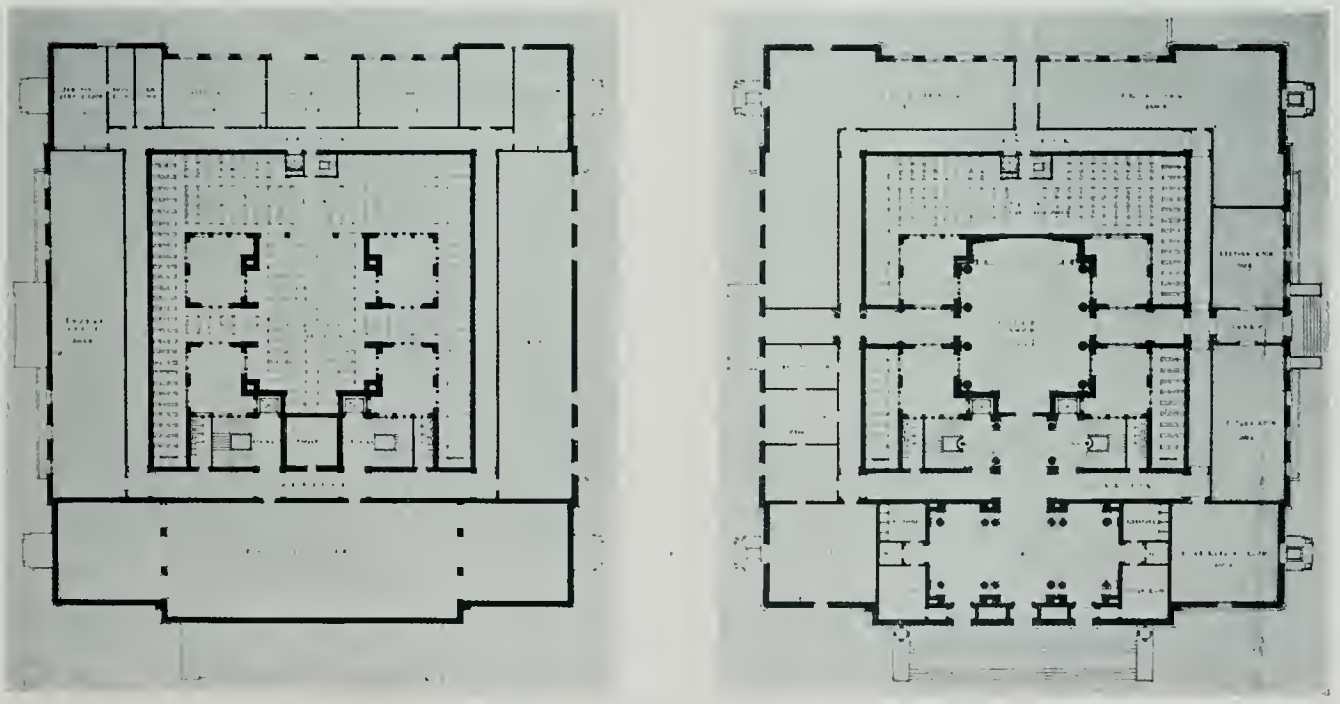


SACRAMENTO STATE BUILDINGS COMPETITION

Sections of Library and Courts Building (Winning Design) Weeks & Day, Architects

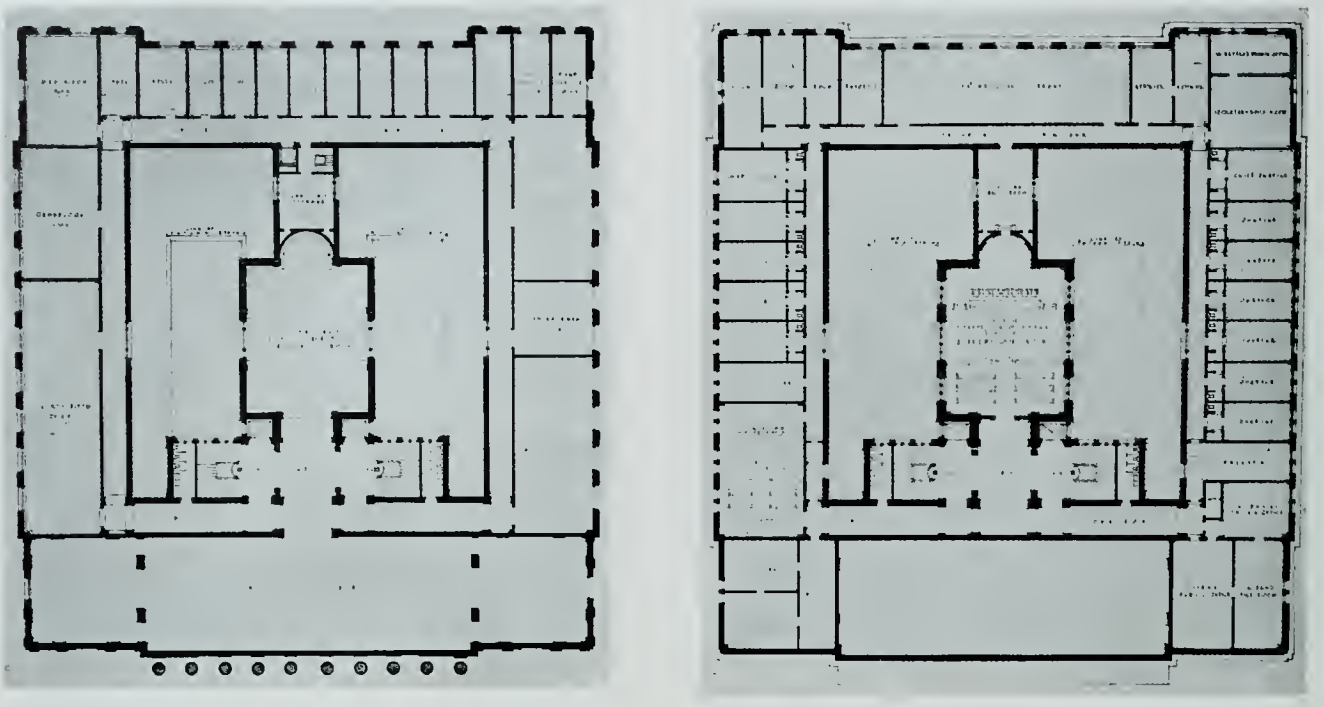


Second Floor and Second Floor Mezzanine Plans of Library and Courts Building

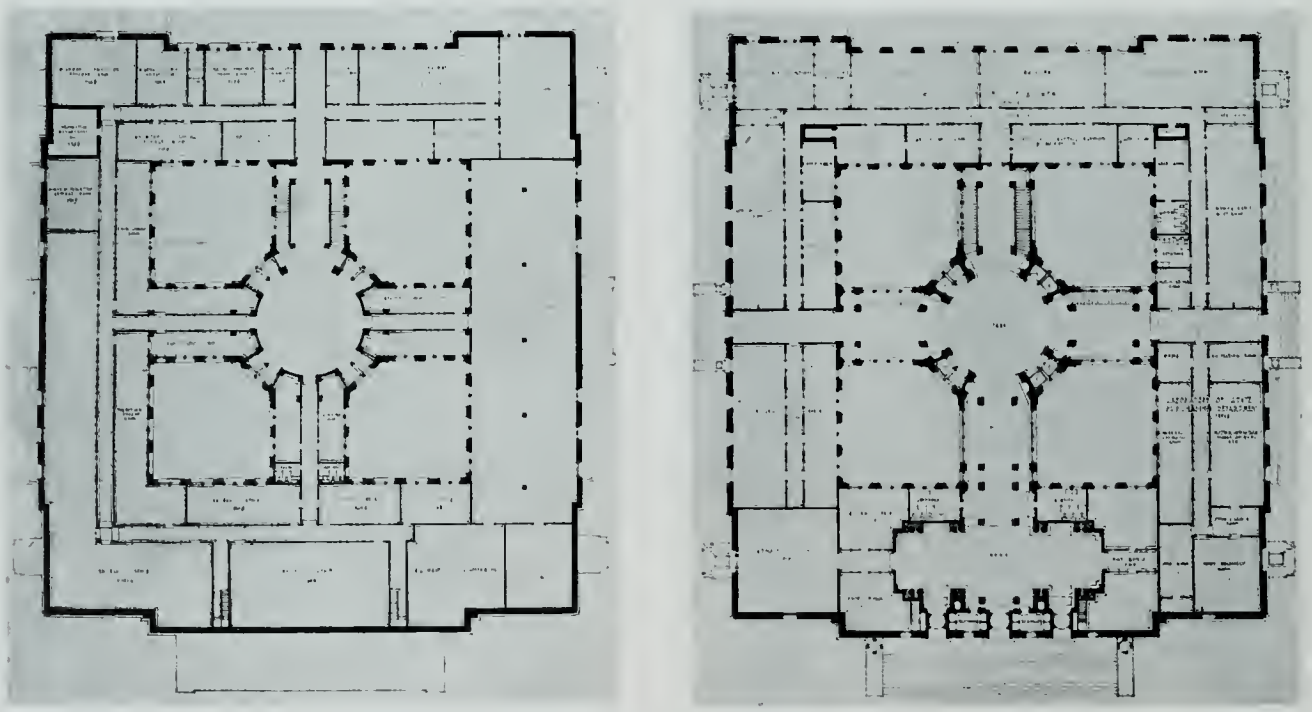


SACRAMENTO STATE BUILDINGS COMPETITION

Basement and First Floor Plans of Library and Courts Building (Winning Design) Weeks & Day, Architects

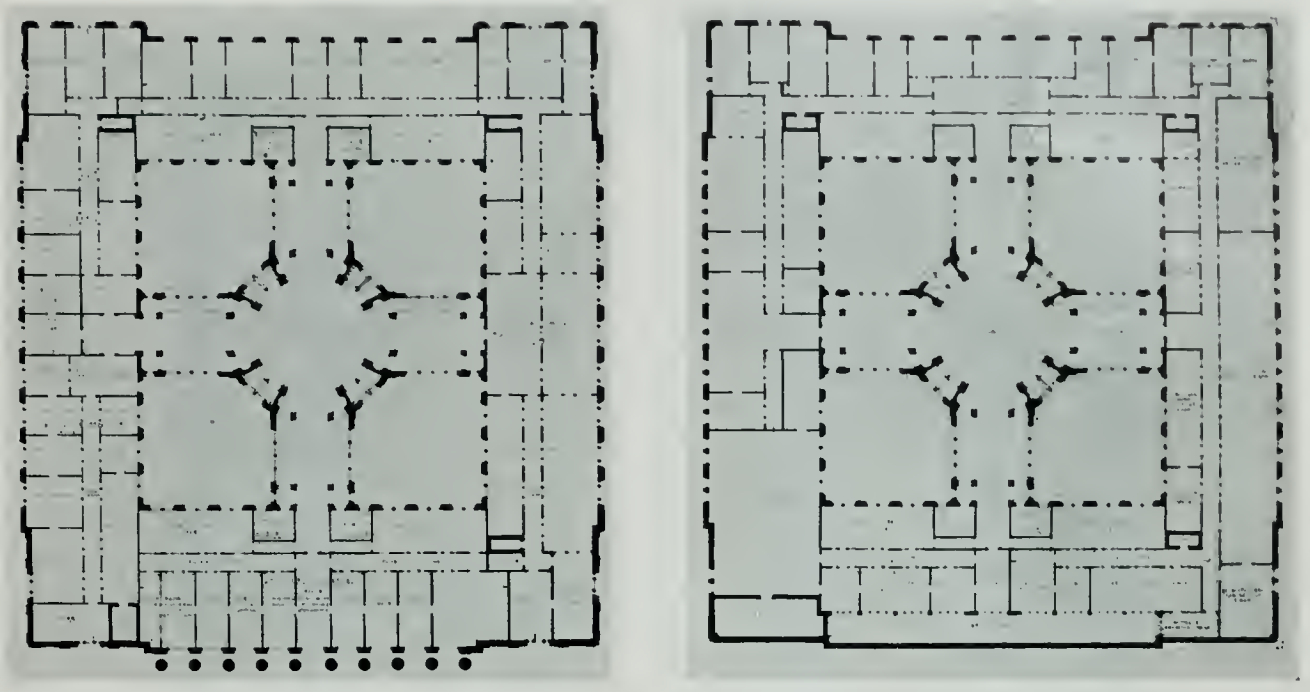


THIRD AND FOURTH FLOOR PLANS OF LIBRARY AND COURTS BUILDING

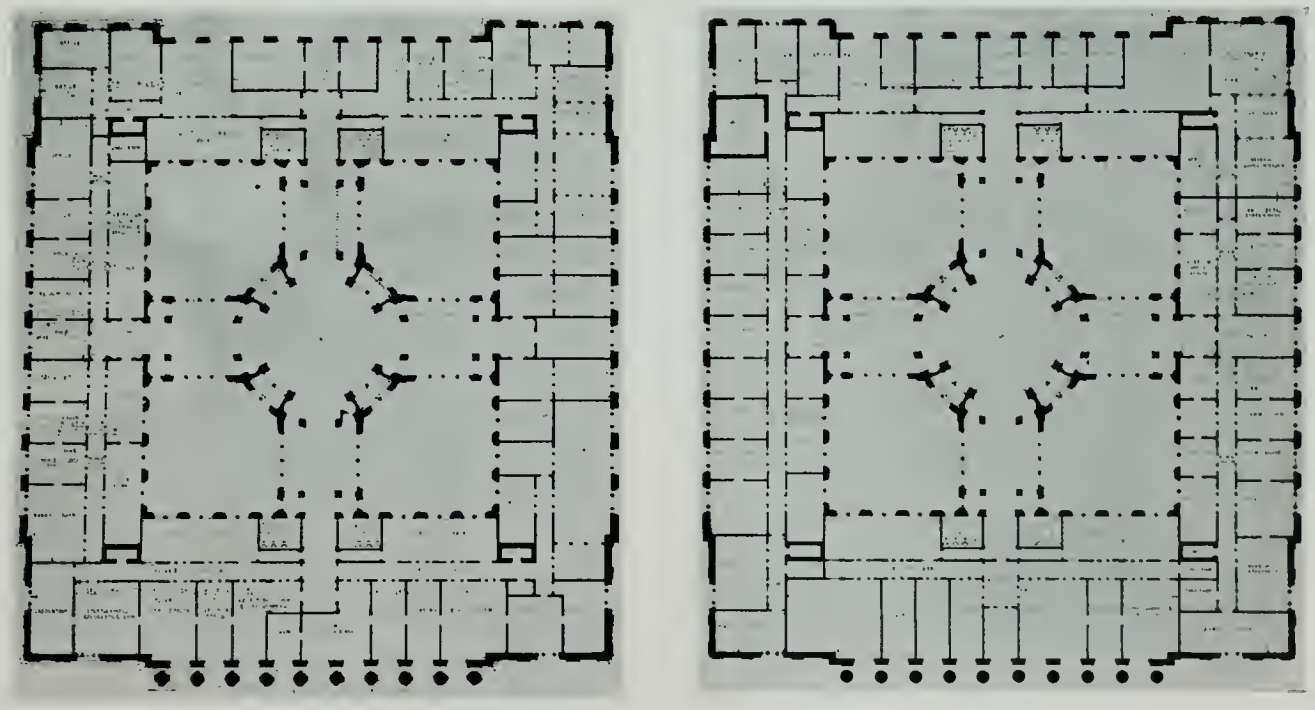


SACRAMENTO STATE BUILDINGS COMPETITION

Basement and First Floor Plans of Office Building (Winning Design) Weeks & Day, Architects

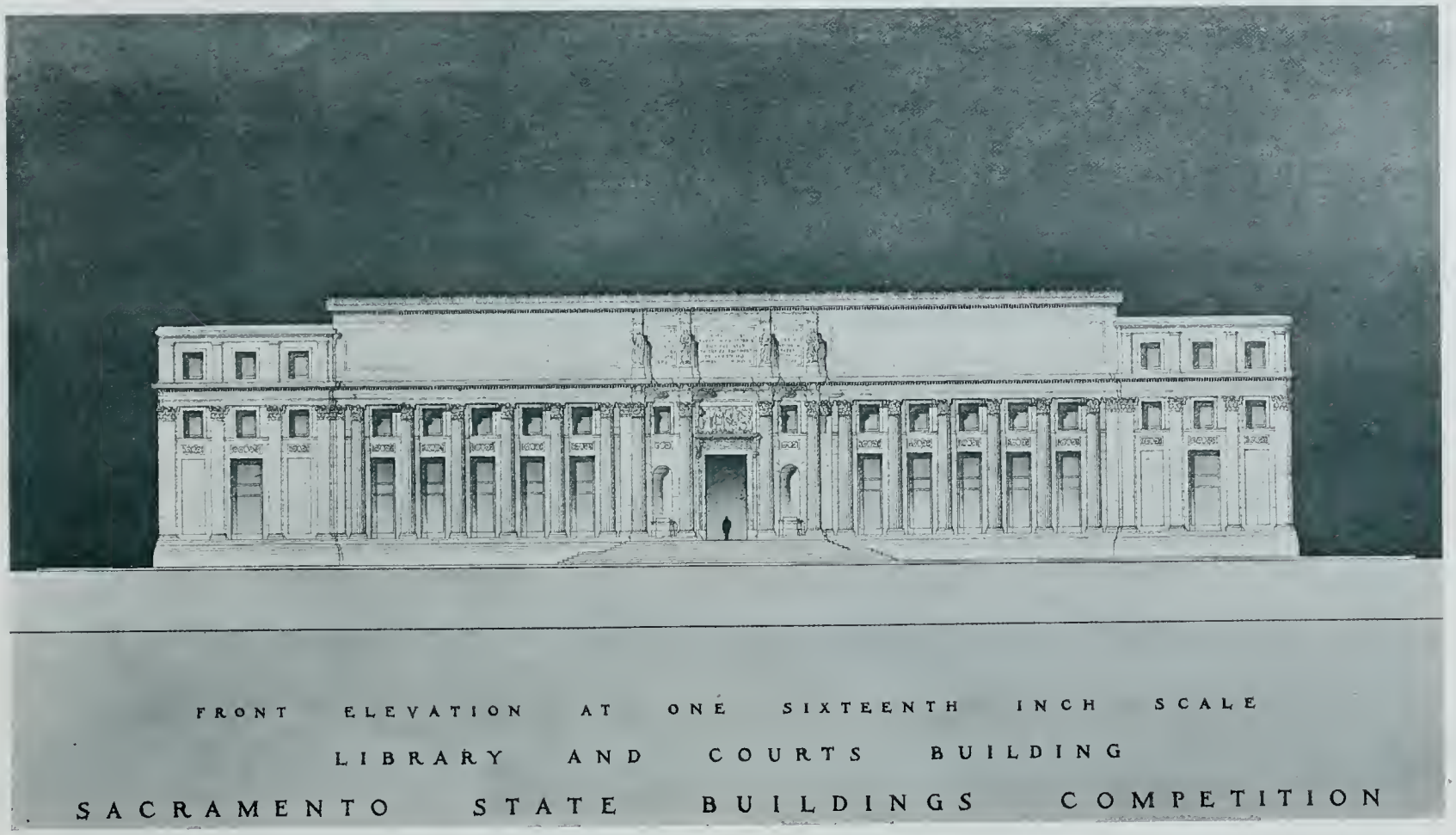


FOURTH AND FIFTH FLOOR PLANS OF OFFICE BUILDING



SACRAMENTO STATE BUILDINGS COMPETITION

Second and Third Floor Plans of Office Building (Winning Design) Weeks & Day, Architects



SACRAMENTO STATE BUILDINGS COMPETITION

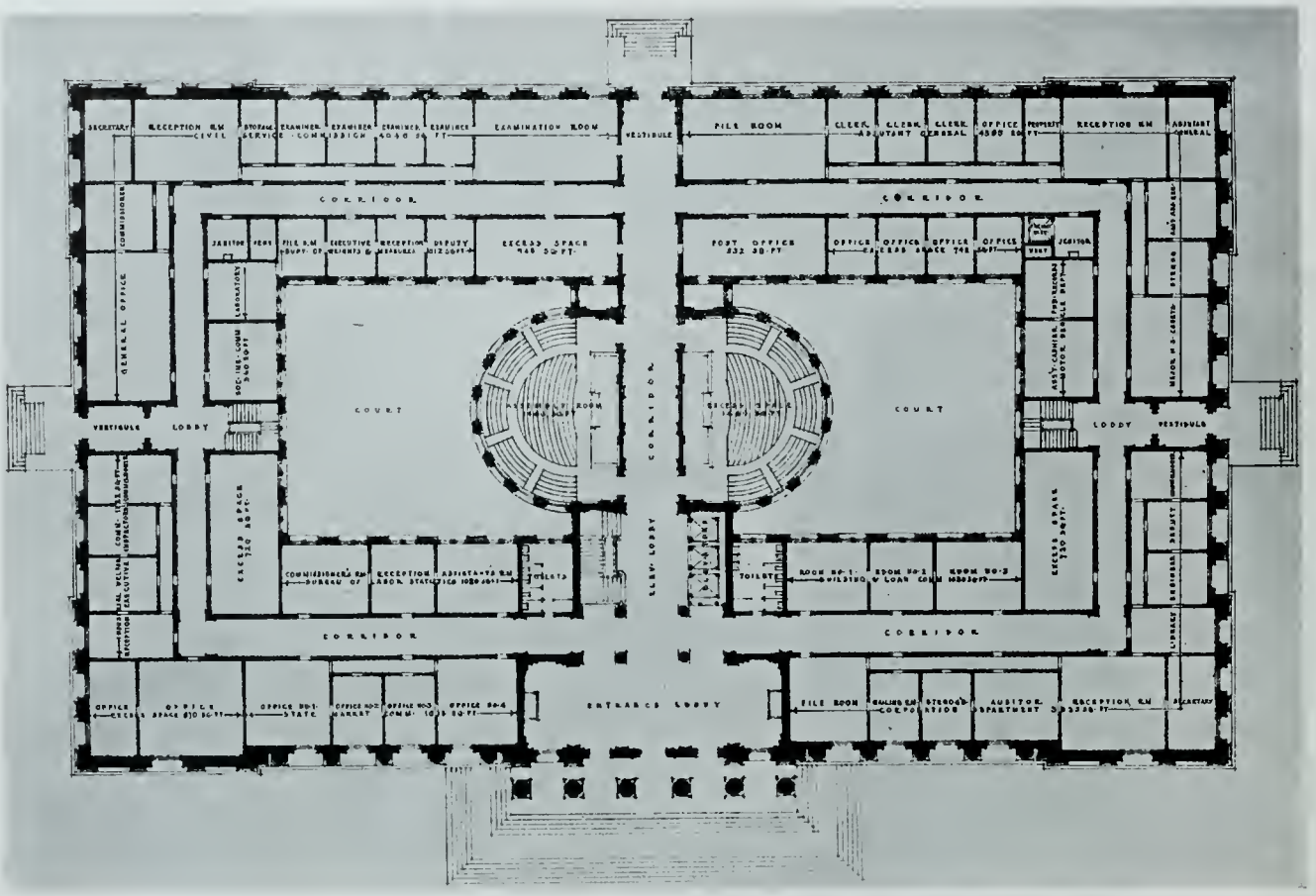
Front Elevation of Library and Courts Building

Bliss & Faville, Architects

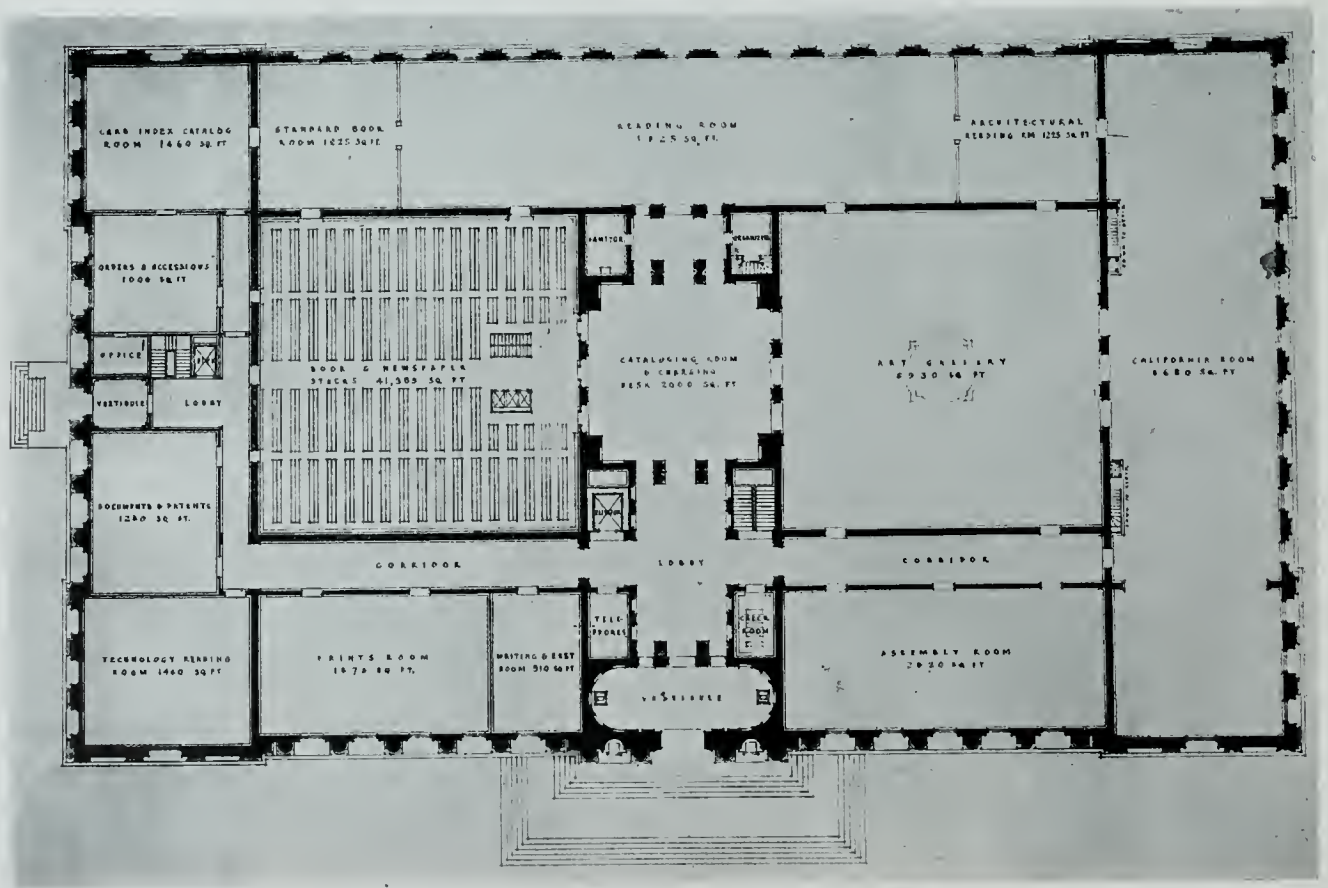
SACRAMENTO STATE BUILDINGS COMPETITION

Front Elevation of Office Building

Bliss & Faville, Architects



FIRST FLOOR PLAN OF OFFICE BUILDING


CARD INDEX CATALOG ROOM 1460 SQ. FT
STANDARD BOOK ROOM 1625 SQ. FT
READING ROOM 1825 SQ. FT
ARCHITECTURAL READING RM 1255 SQ. FT
ORDERS & ACCESSIONS 1000 SQ. FT
OFFICE
VESTIBULE
LOBBY
BOOK & NEWSPAPER STACKS 41,505 SQ. FT
CATALOGING ROOM & CHARGING DESK 2000 SQ. FT
ART GALLERY 6930 SQ. FT
CALIFORNIA ROOM 8680 SQ. FT
DOCUMENTS & PATENTS 1280 SQ. FT.
CORRIDOR
LOBBY
CORRIDOR
TECHNOLOGY READING ROOM 1460 SQ. FT
PRINTS ROOM 1870 SQ. FT.
WRITING & REST ROOM 510 SQ. FT
TELEPHONES
CHECK ROOM
ASSEMBLY ROOM 7020 SQ. FT
VESTIBULE

SACRAMENTO STATE BUILDINGS COMPETITION

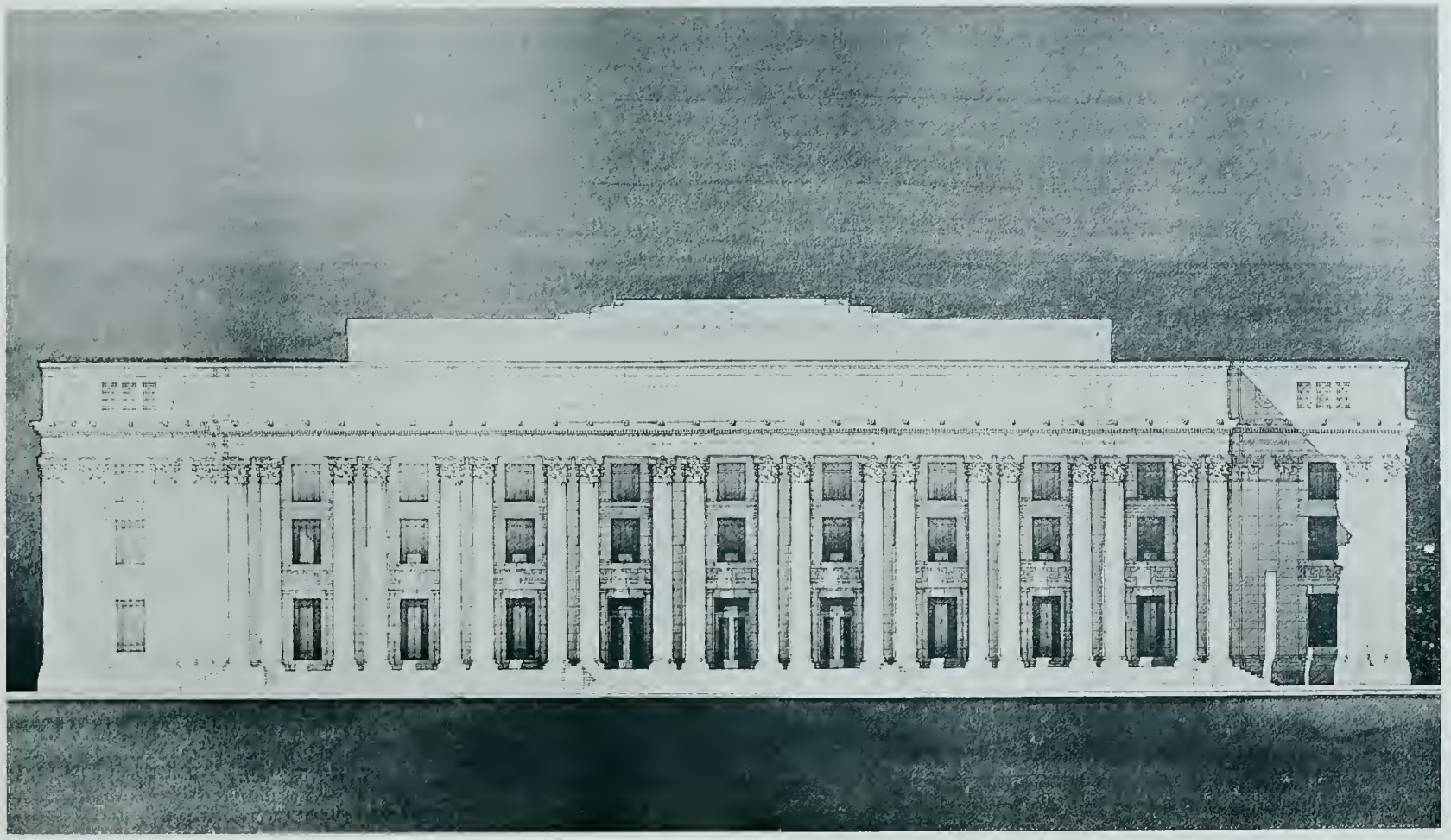
First Floor Plan of Library and Courts Building

Bliss & Faville, Architects

SACRAMENTO STATE BUILDINGS COMPETITION

Main Elevation of Library and Courts Building

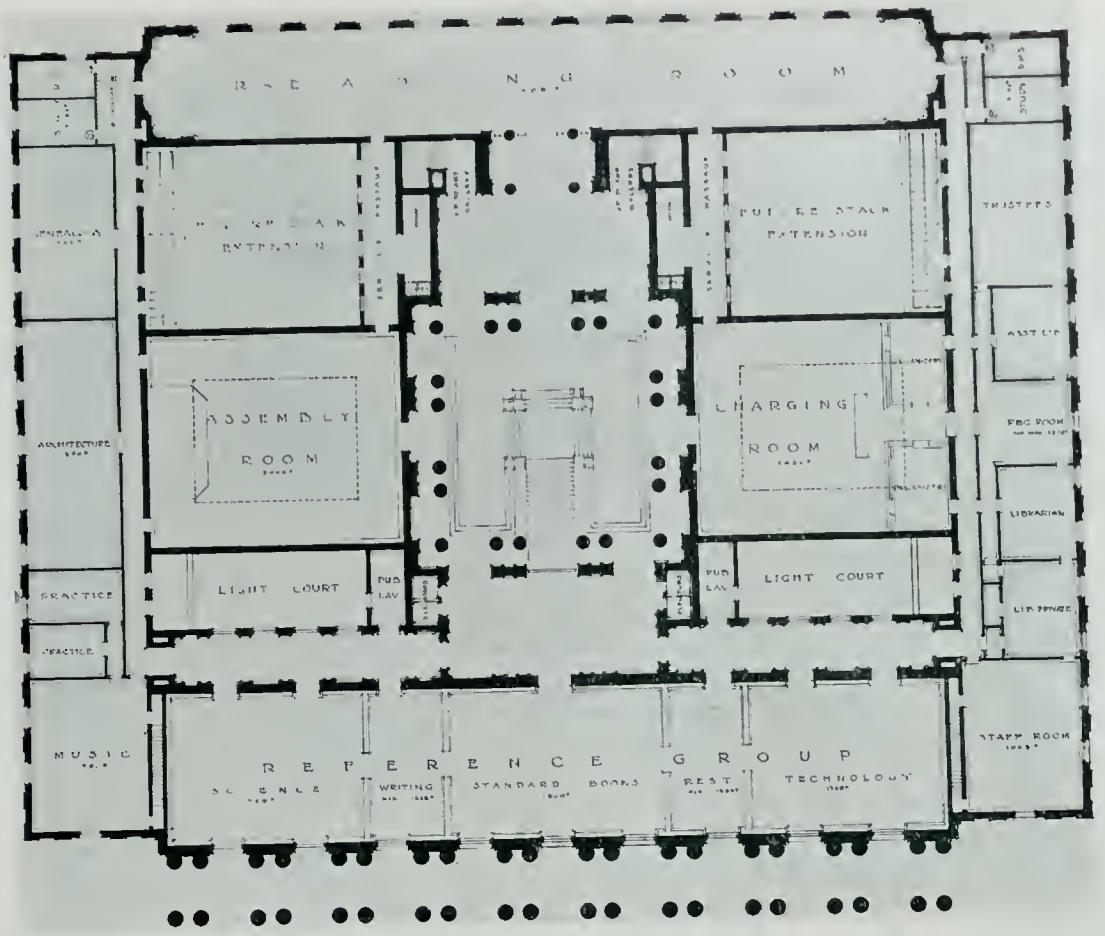
Ward & Blohme, Architects



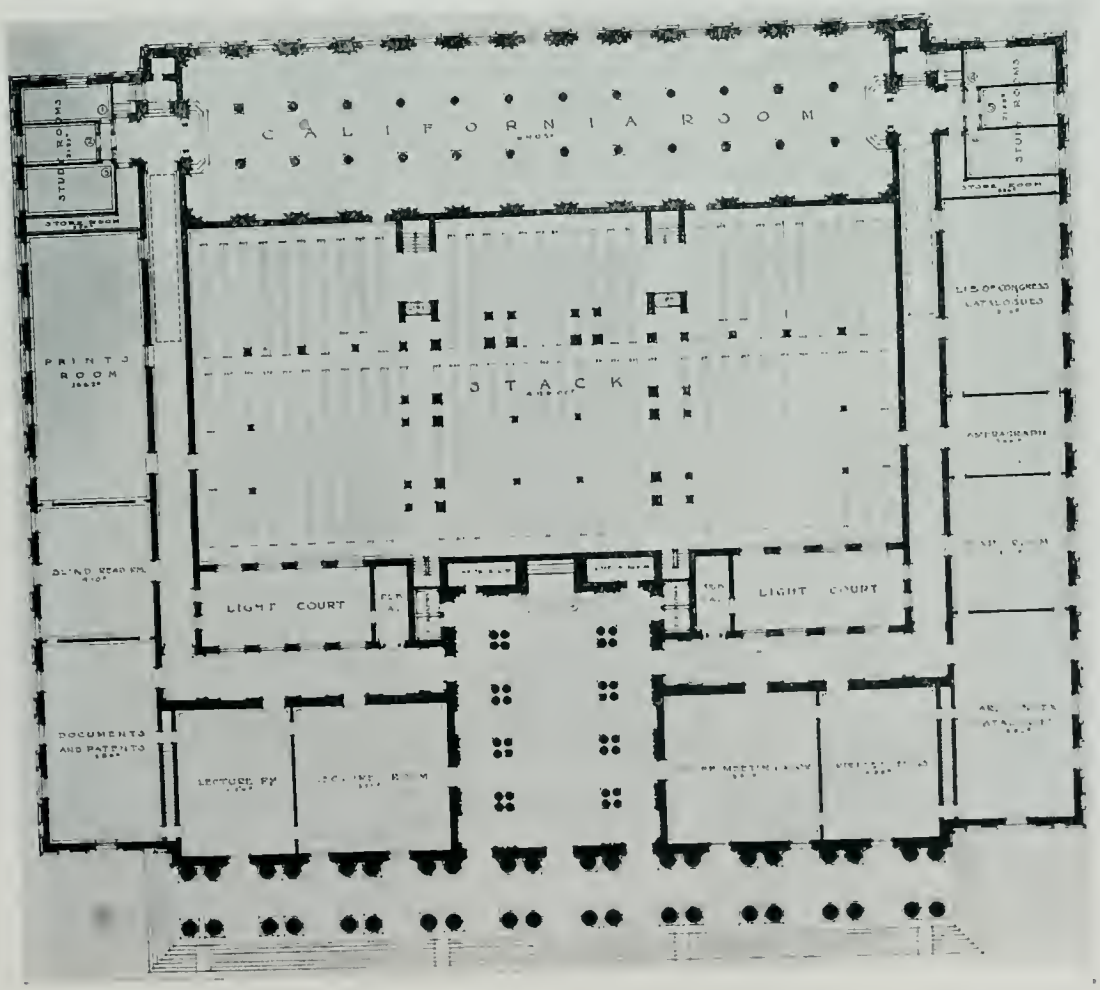
SACRAMENTO STATE BUILDINGS COMPETITION

Main Elevation of Office Building

Ward & Blohme, Architects



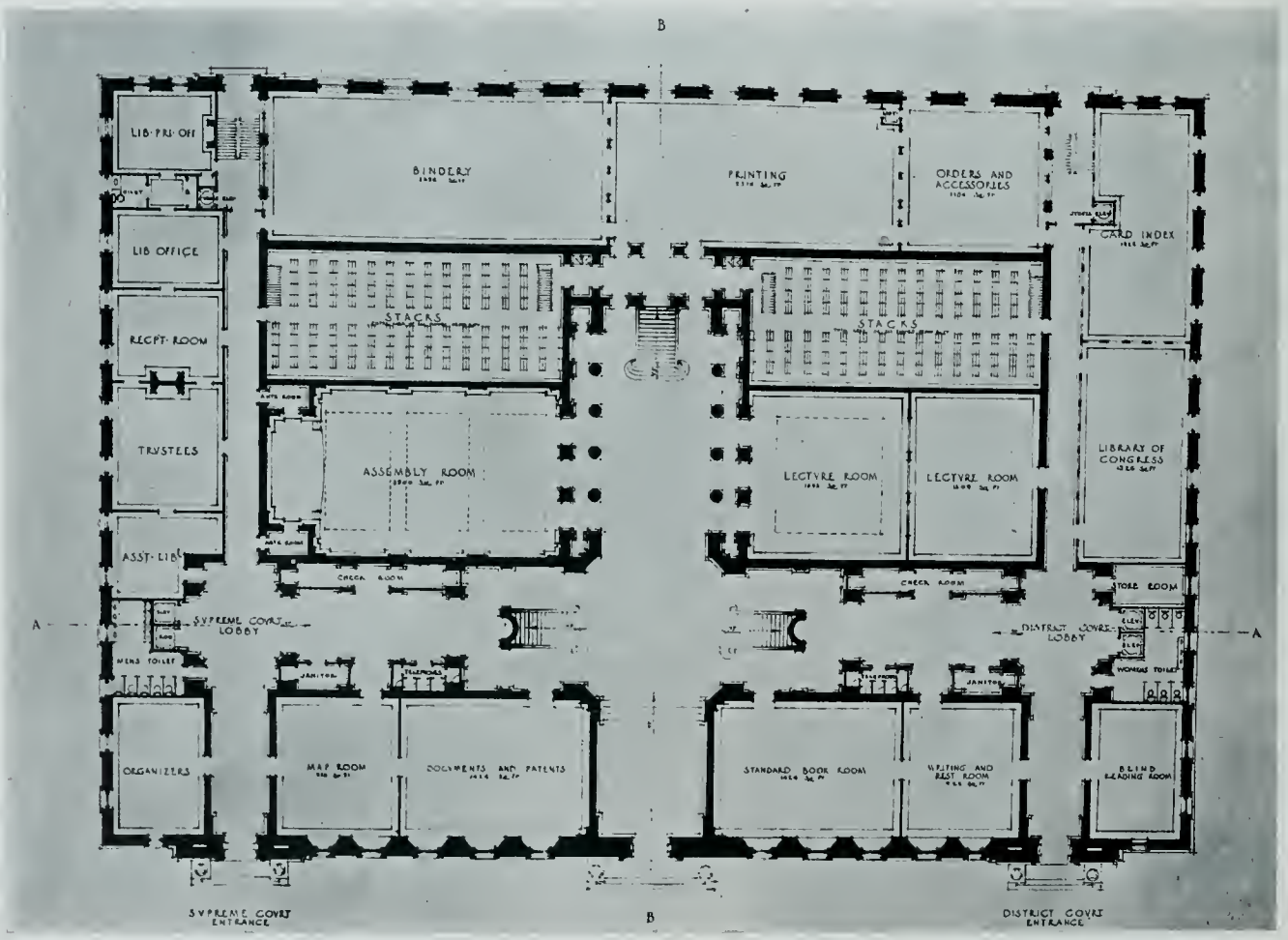
Second Floor Plan Library and Courts Building



SACRAMENTO STATE BUILDINGS COMPETITION

Ward & Blohme, Arch

MAIN ELEVATION OF LIBRARY AND COURTS BUILDING

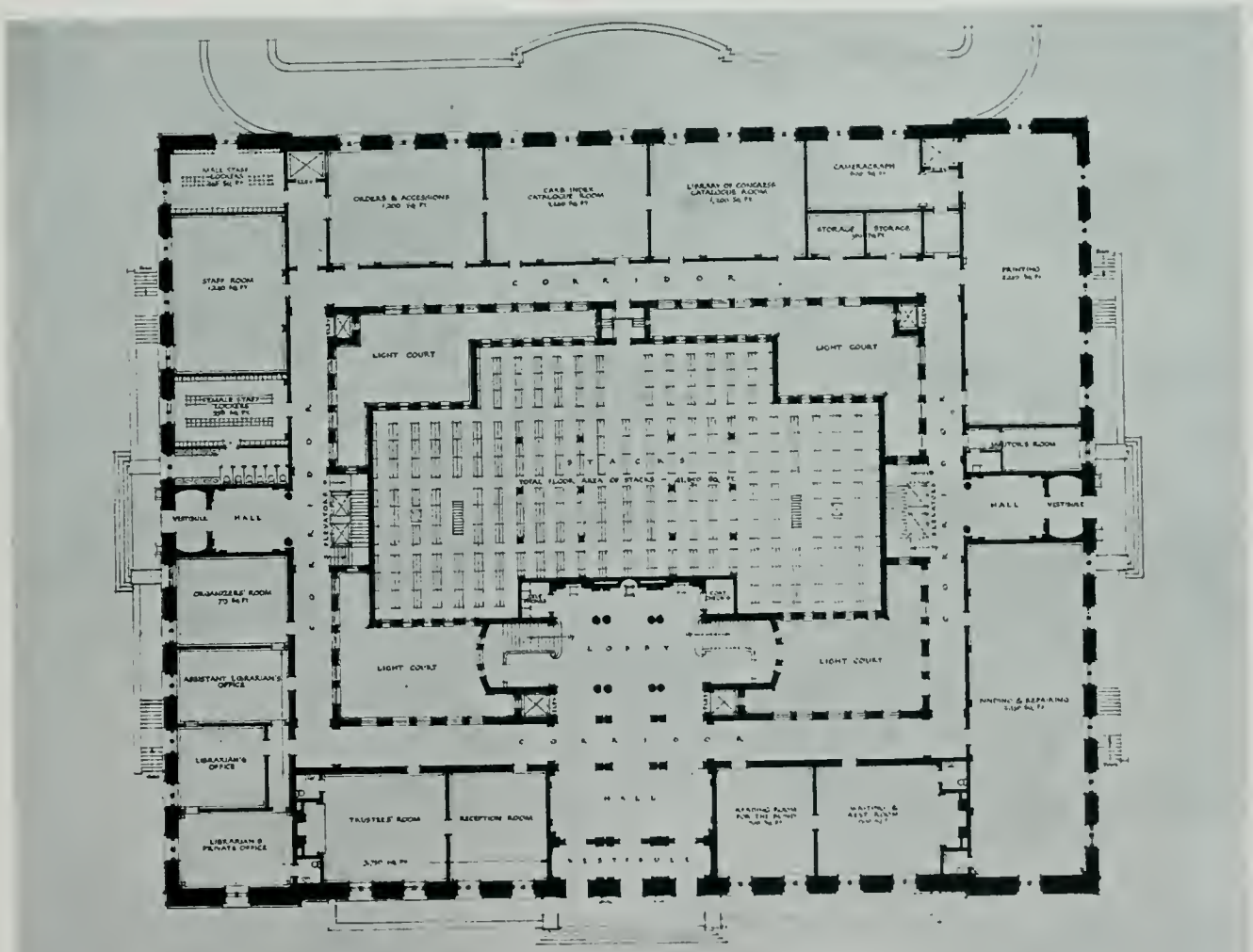


SACRAMENTO STATE BUILDINGS COMPETITION

First Floor Plan of Library and Courts Building — Dennison & Hirons, Architects

FRONT ELEVATION OF OFFICE BUILDING

FRONT ELEVATION

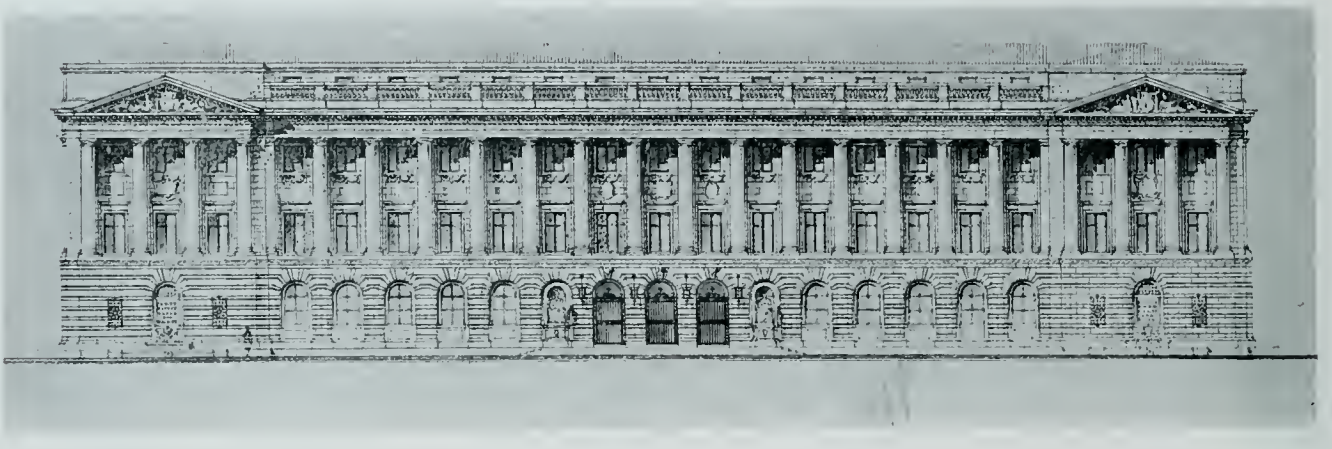


FIRST FLOOR PLAN

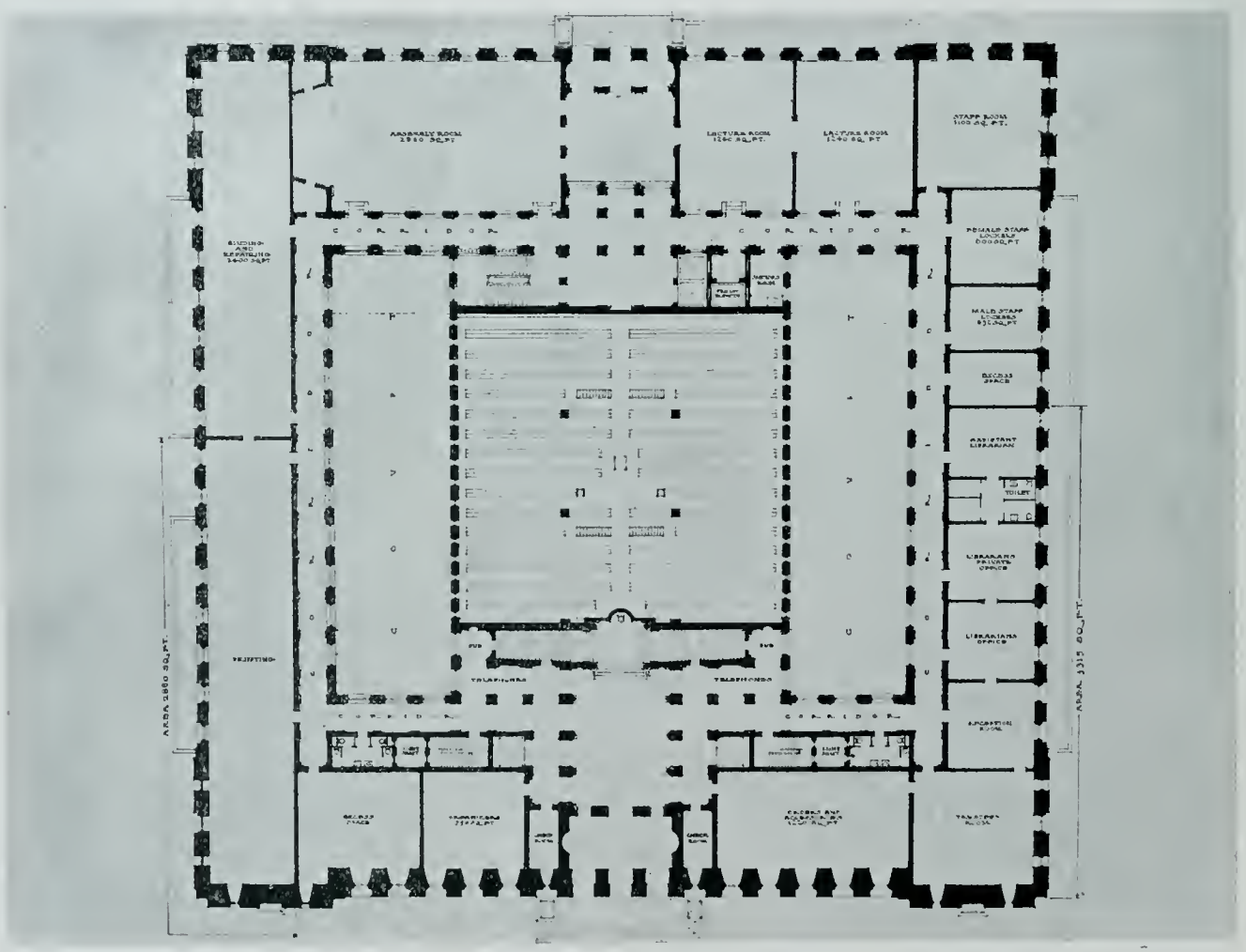
SACRAMENTO STATE BUILDINGS COMPETITION

First Floor Plan of Library and Courts Building

Wm. D. Hewitt & Percy Ash, Architects: N. C. Curtis, Associate



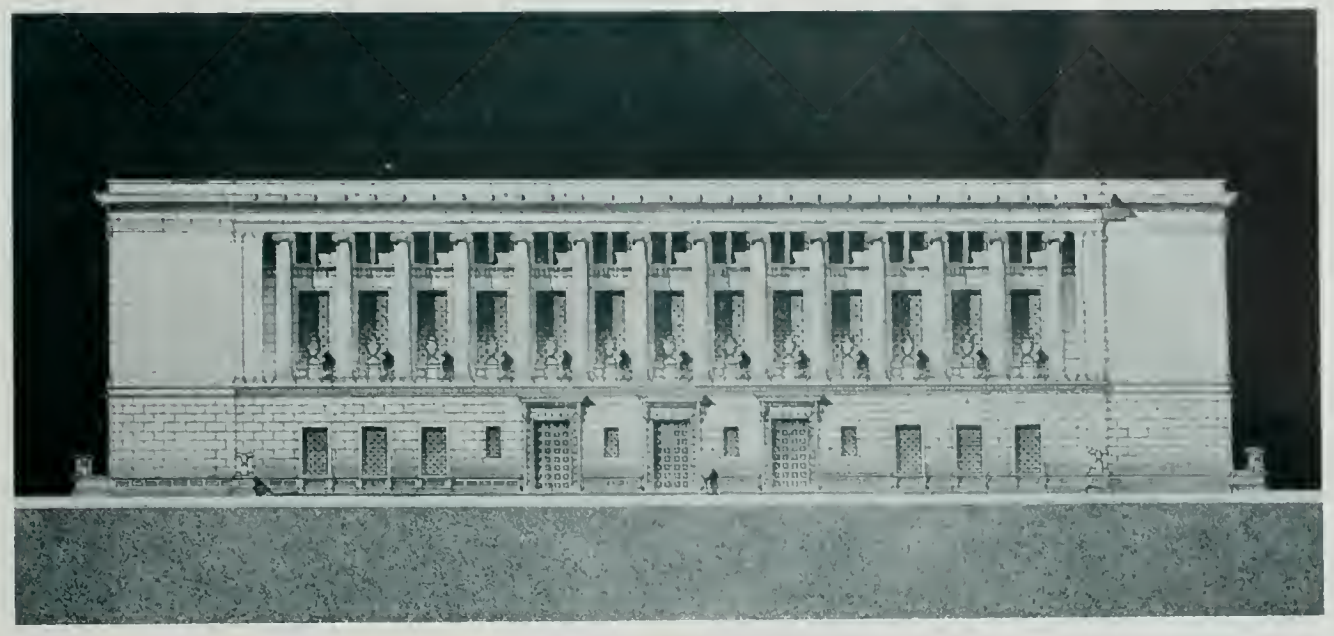
Front Elevation of Library and Courts Building



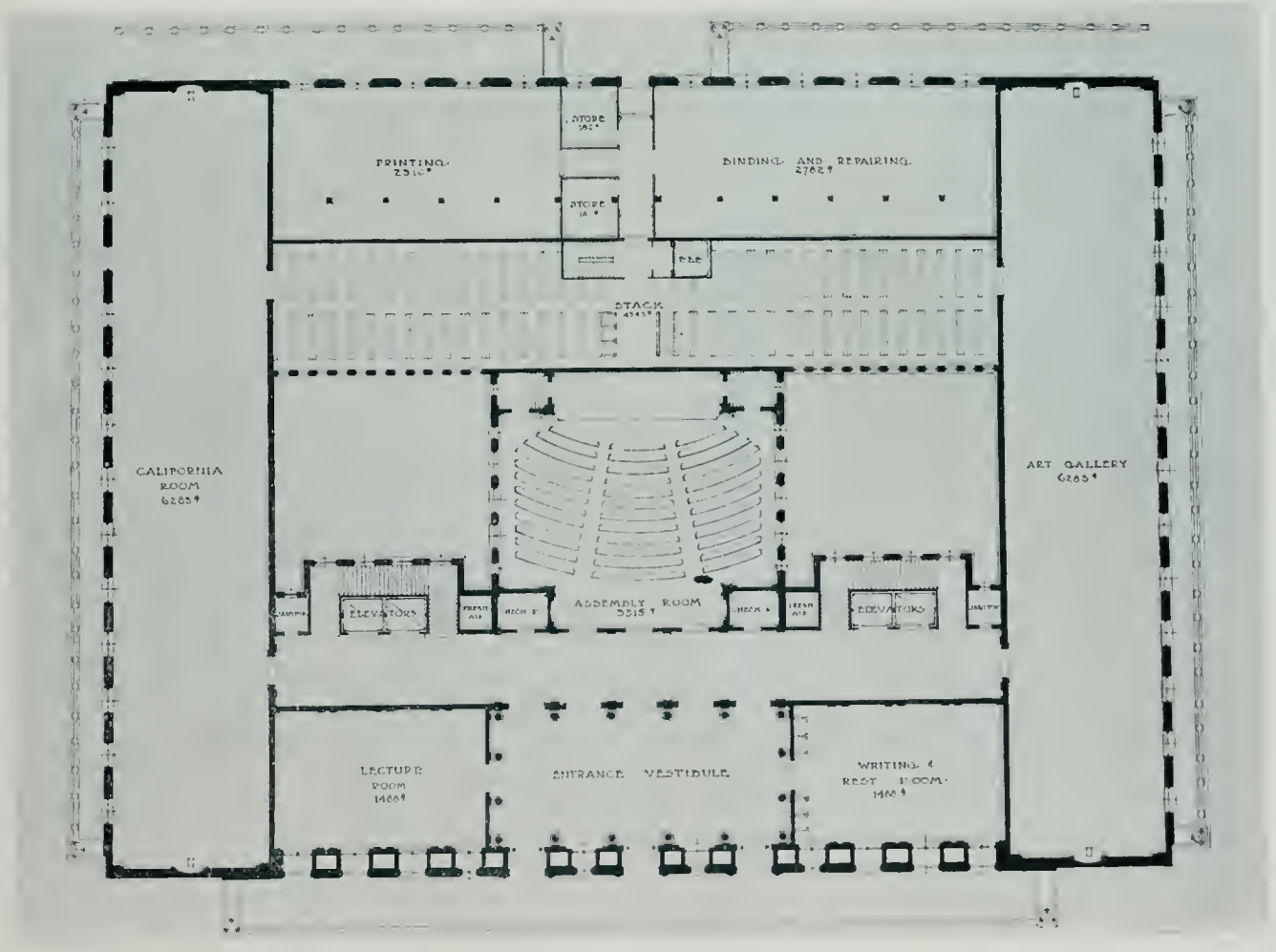
SACRAMENTO STATE BUILDINGS COMPETITION

First Floor Plan of Library and Courts Building

James Gamble Rogers, Architect



Front Elevation of Library and Courts Building

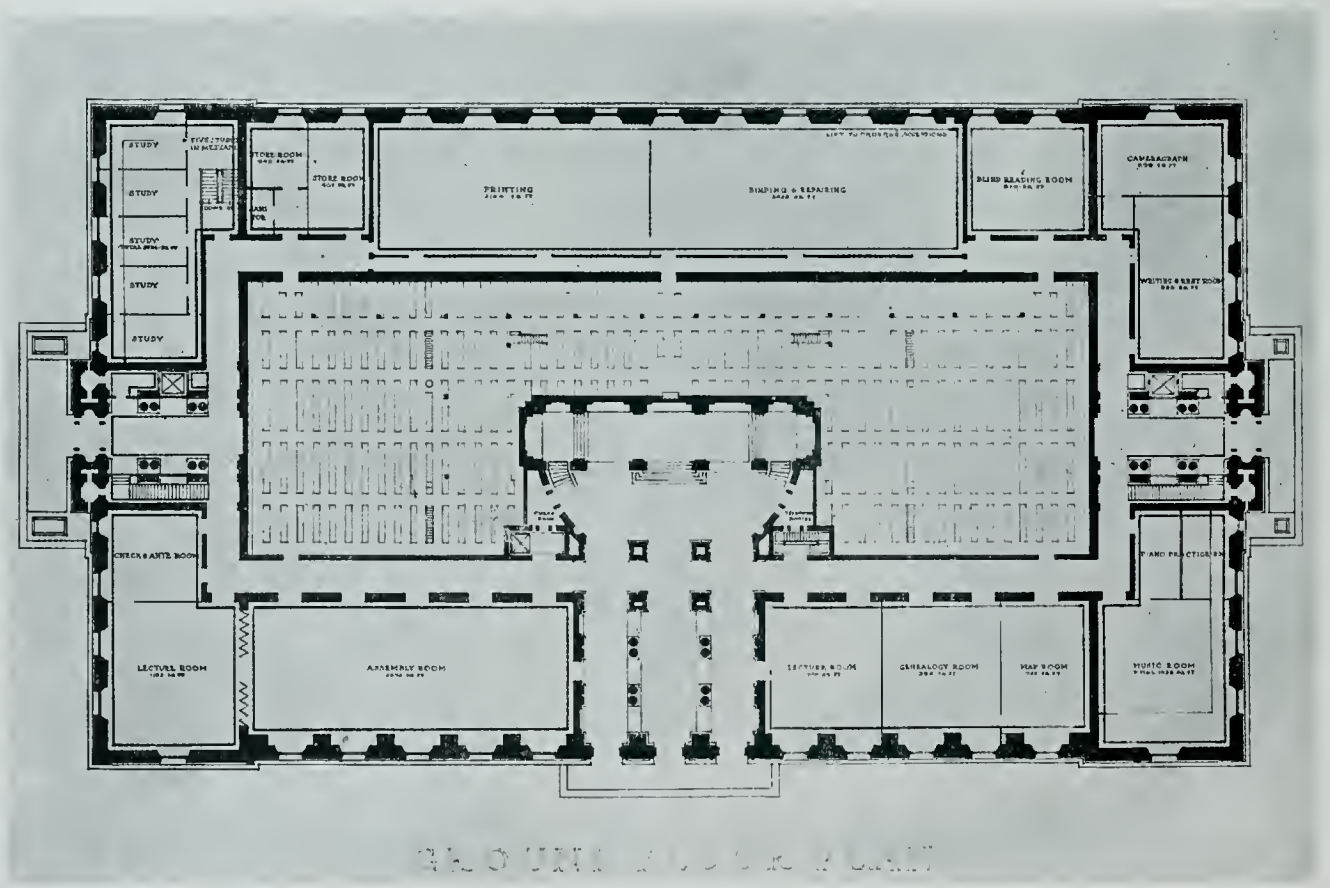


SACRAMENTO STATE BUILDINGS COMPETITION

First Floor Plan of Library and Courts Building

Adolf Scherrer, Architect

FRONT ELEVATION



SACRAMENTO STATE BUILDINGS COMPETITION

Ground Floor Plan of Library and Courts Building

Tracy & Swartwout, Architects

are really quite unnecessary, as occasional experience has refreshingly proved. Wasteful as they must be, therefore, our best promise for the future is not in suppressing or discouraging competitions, but in getting rid of their objectionable features—in eliminating wastes and abuses on the one hand, and on the other hand in assurng that compensation be both general and liberal, in so far these things are humanly practicable. This may imply a variety of things; but they will all reflect the one fundamental obligation of respecting not only the client's desires and the winner's rights, (which is as far as competitions ordinarily go), but the interests of every single architect in the competition.

Waste in architectural competitions is usually one of two kinds; waste of mental effort in extracting verbal meanings, and waste of physical effort in the graphical presentation of ideas. Waste of the first kind is the most exasperating, and in view of the assumed standing of our profession it would seem to be the least excusable as well. The writer of a competition programme need not be a stylist, but he certainly should have a serviceable vocabulary, should realize the precise force and meaning of each word he uses, and should be able to express requirements and conditions simply, clearly and logically—in other words, he should have adequate command of the English language. If he succeeds in this, then all the rest is the competitor's own affair. Unfortunately the programme writer is by no means the only sinner. What a basketful of correspondence piles up when (as sometimes happens) not only is the programme somewhat vague and incomplete, but the resulting inquiries, answers, and counter-inquiries are all more or less deficient and only add to the seemingly hopeless confusion! I should add, in justice to the recent programme, that in this respect it seemed no worse than usual.

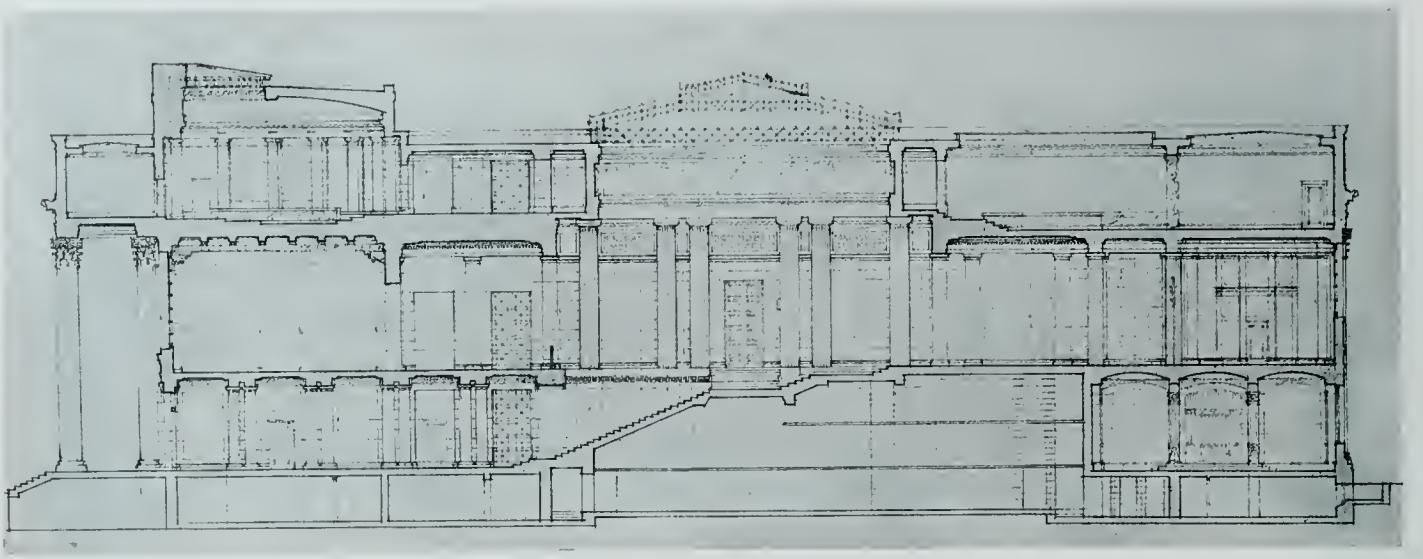
While it is easy thus to find fault with the misuse of language in many of our programmes, it is neither so easy nor so safe to take exception to their content. This is an entirely different ground. For, aside from mere form and expression, the writer of a programme has really a delicate task in strictly limiting the meaning and views he should convey. He must define unmistakably every condition and requirement, optional and mandatory; but beyond that point he must thoroughly efface himself, avoid every kind of prepossession, and leave the main problem absolutely to the free judgment of the competitors — not by any means to their mere skill as draughtsmen. It is far better to err widely in this direction than to impose a pre-determined scheme, or to stick to some rigid preconception and thus stultify the entire competition. It seems hardly necessary, however, to push reticence so far that competitors are compelled to inquire as to the real purposes and relations of the required spaces. Something like this (or was it confusion?) seems to have happened in the recent competition, quite aside from the usual run of foolish questions. The essential conditions of a problem can always be clearly and sufficiently stated, and even their relative weights indicated, while the competitor's big problem of the whole remains untouched.

Waste of mere physical energy in competitions is even more notorious, since it usually compels a more direct and painful outlay in cash. Really it should not require a corps of highly paid henchmen to set forth an architect's conception of an improvement in a manner quite adequate for intelligent comparison. What is the alternative? One measure of relief may be found in prescribing simpler rendering, as is occasionally done, or in requiring only pencil drawings on tracing paper. Unmounted pencil tracings, in fact, are all that the professional juror should require. Obviously, however, they will hardly serve the lay juror (who we must remember is nearly always with us), nor will they do justice either to untrained public opinion, upon which we depend, or to the professional juror himself in a large and important public competition. For the juror's work is exacting enough, if conscientiously undertaken, and we cannot fairly make it harder. We must recognize the limits to this remedy of simplifying competition drawings; and whether we can actually afford it or not we must be willing to present them with all the splendor that circumstances may require.

This makes it all the more imperative that we should insist upon another, and very practicable, measure of relief—a restriction of the number and size of drawings. There is really room for improvement here. When the number of floors is necessarily large, the least important floor plans should be omitted, and the less important of those remaining should be shown at smaller scale. The endless duplication of superfluous lettering might well be eliminated, and every reasonable device should be used to limit the number and size of the sheets. This should operate to the advantage of every one concerned, including the jurors; for, aside from the competitor's efforts saved or concentrated to better purpose, it should make comparison far easier and judgment much more direct and certain. The competitor's graphic message to the jury, like the advisor's verbal message to the competitor, must of course be sufficiently complete and unmistakable. But not one jot or tittle more!

As for the various abuses which have seemed inseparable from competitions, being, as they are, inherent in human nature, little need be said; for I like to believe they are fast disappearing. A flagrant or even a slight offense of any kind usually prompts the corresponding corrections and safeguards in subsequent programmes—safeguards against careless procedure, the accidental disclosure of identity and other mishaps or assumed privileges that tend to deprive a competitor of his rights or give unfair advantage. For of all the games in the world, the architectural competition is distinctly and exclusively a game for gentlemen. Happily the architect's training and trusts tend to make him one of these, even though he unfortunately lack the instincts. And nowhere in his whole field of practice does he find more room for gentlemanly conduct, with all that the phrase implies, than as an advisor, or juror, or participant, or particularly as a loser in a competition.

Having minimized the wastes of competitions as far as we are able (but without waiting to correct all the abuses), we should next increase to the utmost limit the competitor's every compensation. Since pure fun and post-graduate self-education are about all that the average competitor gets out of it, the advisor ought to see that the educational value at least is duly stressed. This means, for one thing, that the competitors should be given all possible opportunities, by convenient exhibitions, to



Cross Section — SACRAMENTO STATE BUILDINGS COMPETITION — Ward & Blohme, Architects

study each other's drawings, to the end that full and free discussion and criticism may be invited. Above all it means that the process of reasoning by which the jury reaches its selection shall be disclosed fully and without reservation. It is taken for granted, in all fairness, that each competitor's submission will be carefully and systematically judged by the experts of the jury, in full consideration of the printed programme, and of it alone. It should be equally expected and exacted that the report of the jury shall be no short perfunctory affair, but a thorough discussion and analysis of the whole problem and a most painstaking assessment of its various solutions. Such a report would be of itself a comfortable guarantee of discriminating judgment, and a measure of the seriousness and skill with which a jury has met its duties. It would afford the only adequate means, now generally almost lacking, by which the average competitor can really find out where he stands. Surely the architect who has ventured his time and money in a competition is entitled to at least this much compensation.

Yet another thing: the responsibility of the jury for precise judgment should be coupled with complete independence in criticism. This would not only increase the competitor's compensation, but it should hasten the improvement of competitions at large. With both of these excellent services in view it is really an egregious waste to have the jury's exceptional discrimination and criticism stop short wth the competitors. Why should not this body give us its own opinion of the programme, with suggestions which future advisors will value? Why should it not feel free, and also bound, to evaluate the entire competition in judicial and impersonal fashion, to the great benefit of the whole profession? The broader the views we get, the sooner the logic of the practice will emerge to show us why, how and when public competitions should be limited; why the double stage competition, and how it should be regulated; whether the competition should be for the purpose of finding the solution of a problem or the architect for a building; and what the complexion of the jury itself should be. There is no reason, in fact, why the competition jury should not be as independent as our legal judiciary, or at least sufficiently free in these directions fully to serve the competitor's dearly acquired interests as well as those of the public at large. Possibly I overemphasize a little, and I cannot stop to say how the thing might be done. But do not doubt that if this position of full responsibility and independence of juries is as desirable as I make it, we shall somehow, and shortly, see it attained.

Meanwhile, as matters improve, the average competitor may learn some exceedingly valuable lessons. As judgment becomes more exact, he will realize more and more clearly that the competition is not really a game of chance, but a supreme test of his own mature and cultivated judgement. The mere assurance of what is to come should properly deter the dabbler, and discourage the speculator in stunts and the clever fellow who neglects all serious study until the last two weeks and then tries to put over a belated "hunch." The foreknowledge of a strict judicial accounting and criticism should remind the purely commercial practitioner that in order to win a good competition one must consistently practice winning architecture, cost what it may; that one cannot compromise with the devil in every-day design and then live down low standards over night—no, not even with all the clever and expensive help one may employ. On the other hand, such a promise should encourage (and should duly reward) those who take up the problem most seriously and promptly, who canvass the possibilities most painstakingly, who weigh them all the most precisely, who exercise in the highest degree that matured and refined judgement which comes only from habitual seriousness and elevation and who then forestall most brilliantly (but not too brilliantly) the jury's own conclusion! To be personal in these last few words, this is the simple little thing that our friend Mr. Charles Peter Weeks has just done, (and which others of our San Francisco Architects have come near to doing) in winning his distinguished honors in the national field. He once began an article, I now recall, by saying that an architectural competition is an examinaton in architecture. He very well knows it is much more than that, in the ordinary sense. For one thing at least, if the programme be a good criterion, it is a most thorough and searching examination of the architect himself. Incidentally any young architect who wishes to rise above the average competitor, with whom I have been so much concerned, may gather some fruitful suggestions. He has only to develop the right qualities, live the right kind of lofty professional life, apply judiciously the formula just now divulged—and some day he will find himself almost, if not quite, the winner of a competition!

List of Architects and Draughtsmen in Military Service

San Francisco Chapter

Harris C. Allen	John A. Baur	John Davis Hatch	James T. Narbett	Walter D. Reed
E. P. Antonovich	Ernest Coxhead	B. S. Hirschfeld	Ernest L. Norberg	W. O. Raiguel
John Bakewell	Franklin T. Georgeson	John Galen Howard	Sidney B. Newsom	

San Francisco Architectural Club

Walter Reed	H. O. Elliot	Milton Heilfron	Mr. Nickelson	C. O. Clausen
John Branner	M. Schwartz	Harry Devine	Mr. Corking	C. Ambrose
Albert Cauldwell	J. W. Oliver	Phil De Longchamps	Roland Stringham	Wm. Debrunner
Harvey E. Harris	E. K. Martin	Edmund J. Burke	Fernand Parneitier	John McHenry, Jr.
Harry Abrahms	L. A. Keyser	W. J. Helm, Jr.	Walter Clifford	Wm. Rankin
E. B. Bangs	Louis Saylor	Ed. L. Frick	Harold Weeks	Fernand Allamand
W. I. Garren	T. E. A. Tellefsen	R. W. Bradley	Rodney Jones	H. F. Uttley
Chas. J. Masten	Mr. Freer	Gerald Craner	Vincent Buckley	L. D. Howell
Lester Hurd	Clyde Payne	Wm. Smythe	M. Meherin	Fred Brauer
Henry Howard	Fred Kramer	Roy Muhe	Louis Jacobsen	A. S. Roguel
Earnest De Cheene	Joseph Cohen	Lewis Jackson	Arthur Jory	Lex Kelley
Herbert Brown	Joseph Cahen	Gordon Raeside	Stafford L. Jory	Howard McMullin
Clement Ambros	Wallace Stephen	Albert W. Burgren	C. V. Calvert	E. Boldeman
Guy L. Brown	Earl Meyers	Ed. Sharp	J. Bettencourt	Harold Danheim
Ed. H. Russ	Lawrence Kruse	H. P. Buckingham	Walter Stone	Edward Tillman
P. Fisher	Ross W. Edmonson	J. L. Bourgeois	N. A. Reinecker	

Southern California Chapter

Edward C. Taylor	Ross Montgomery	P. H. Frohman	Edgar H. Cline	Karl D. Schwendener
Robert M. Taylor	John T. Vawter	D. C. Allison	Walter S. Davis	Robert D. Farquhar
Dwight Wallace	Joseph Weston	Kenneth C. Albright	Chas. Schweissinger	William E. Murphy
Arthur Evans	Robert Lockwood	Emmet G. Martin	James Hanenstein	Russell Ray
C. P. Hill	Archie Zimmerman	Chas. A. Wall	B. A. Freeman	Myron E. Moore
Eugene Weston	Jos. Fiel	Sam W. Williams	Carl Sjoberg	George J. Hodenpyl, Jr.
Seth Wharton	H. A. Jackson	John Hasemeir	James Connell	Duane Lyon

Washington Chapter

Chas. H. Alden	Walter Bogart	Herbert Lindhoust	Harold Sexsmith	W. M. Somervell
William J. Bayne	Joseph S. Cote			

Portland Chapter

Mr. Lorings	John Stanton	C. Merrian	John McGuire	Walter Church
J. J. Burling	Warren Hathaway	Lloyd Dittrich	Peter Jensen	Dell Hinson
Russell Collins	George Otteu	J. Tourtellotte	Howard Hall	Harvey Madden
J. Andre Fouilhoux	Chester Truichell	L. C. Rosenberg	H. W. Ward	O. Lyllenberg
Harold Doty	Jay Keller	Artie Marshall	Fred A. Fritsch	Glenn Stanton
Edwin Merrill	T. Turner	Earl Heitschmidt	Eyler Brown	

Official News of Pacific Coast Chapters, A. I. A.

The regular minutes of meetings of all Pacific Coast Chapters of the American Institute of Architects are published on this page each month.

San Francisco Chapter, 1881—President, John Bakewell, Jr., 251 Kearny Street, San Francisco, Cal. Secretary, Morris M. Bruce, Flood Building, San Francisco, Cal. Chairman of Committee on Public Information, William B. Faville, Balboa Building, San Francisco. Chairman of Committee on Competition, William Mooser, Nevada Bank Building, San Francisco. Date of Meetings, third Thursday of every month; Annual, October.

Southern California Chapter, 1894—President, J. J. Backus, Room 35, City Hall, Los Angeles, Cal. Secretary, H. F. Withey, 1017 Van Nuys Building, Los Angeles, Cal. Chairman of Committee on Information, W. C. Pennell, Wright & Callender Building, Los Angeles. Date of Meetings, second Tuesday, except July and August, at Los Angeles.

Oregon Chapter, 1911—President, Joseph Jacobberger, Board of Trade Building, Portland, Ore. Secretary, Alfred H. Smith, Board of Trade Building, Portland, Ore. Chairman of Committee on Public Information, Joseph Jacobberger. Date of Meetings, third Thursday of every month at Portland; Annual, October.

Washington State Chapter, 1894—President, Daniel R. Huntington, Seattle, Firse Vice-President, A. H. Albertson, Seattle, Second Vice-President, George Gove, Pullman. Third vice-President, Albert Held, Spokane. Secretary, Gerald C. Field, Seattle. Treasurer, Frank L. Baker, Seattle. Counsels: Charles H. Bebb, James H. Schack, James Stephen. Date of Meetings, first Wednesday, except July, August and September, at Seattle, except one in spring at Taeoma. Annual, November.

The American Institute of Architects—The Octagon, Washington, D. C. Officers for 1918: President, Thomas R. Kimball, Omaha, Neb.; First Viee-President, Charles A. Favrot, New Orleans, La.; Second Vice-President, George S. Mills, Toledo, Ohio; Secretary, William Stanley Baker, Boston, Mass.; Treasurer, D. Everett Waid, New York, N. Y.

Directors for Three Years—Edward W. Donn, Jr., Washington, D. C.; Robert D. Kohn, New York, N. Y.; Richard Schmidt, Chicago, Ill. **Directors for Two Years**—William B. Faville, San Francisco, Cal.; Burt L. Fenner, New York, N. Y.; Ellis F. Lawrence, Portland, Ore. **Directors for One Year**—Edwin H. Brown, Minneapolis, Minn.; Ben L. Lubschez, Kansas City, Mo.; Horace Wells Sellers, Philadelphia, Pa.

Minutes of San Francisco Chapter

SEPTEMBER 19th, 1918.

The regular monthly meeting of the San Francisco Chapter of the American Institute of Architects was held at Lacay's Restauraunt, 80 Ellis Street, on Thursday evening, September 19, 1918. The meeting was called to order by Mr. Sylvain Schnaittacher, the Vice-President, at 8 p.m.

The following members were present: Morris M. Bruce, J. W. Dolliver, Wm. C. Hays, J. S. Fairweather, W. B. Faville, William Mooser, M. O'Brien, Smith O'Brien, Arthur G. Scholz, Sylvain Schnaittacher, Charles P. Weeks, Edgar A. Mathews, and Mr. John H. Vogel, as a guest of the Chapter.

MINUTES

The minutes of the meeting held on June 20th, 1918, were read and approved. No meetings were held during July and August owing to summer vacation.

STANDING COMMITTEES

BOARD OF DIRECTORS:

Mr. Schnaittacher for the Board of Directors reported that the Board had held a meeting and among other matters considered, was correspondence between Mr. Bakewell and Mr. Allison relative to the amendment of the State License Law at the next meeting of the Legislature, and reported it was the sense of the Board that it was inadvisable to act on this matter at the present time.

The fact that Mr. John Bakewell, Jr., President of the Chapter, and Mr. John Galen Howard had left for Red Cross Work in France, was also announced.

S F. SUB-COMMITTEE ON COMPETITIONS: No report.

INSTITUTE RELATIONS: The reading of the report of the Chairman of this committee, John Galen Howard, was deferred until the Annual Meeting to be held October 17th.

COMMITTEE ON MUNICIPAL MATTERS: No report.

COMMITTEE ON EDUCATION: No report.

COMMITTEE ON RELATIONS WITH COAST CHAPTERS: No report.

COMMITTEE ON PROGRAMS OF MEETINGS: No report.

COMMITTEE TO STUDY BUILDING CONDITIONS: No report.

COMMITTEE ON BUILDING EXHIBIT: No report.

CHAPTER TRUSTEES (Books with S. F. Architectural Club): No report.

SPECIAL COMMITTEES

COMMITTEE TO INVESTIGATE THE PRACTICABILITY OF COMBINING WITH S. F. ARCHITECTURAL CLUB:

A written report was submitted by Mr. Fred H. Meyer.

COMMITTEE ON EXHIBITION AT FINE ARTS PALACE:

Mr. Charles P. Weeks as Chairman stated that he had collected the balance amounting to $60.00 due the San Francisco Art Association and turned a check for the amount over to the Chapter.

COMMUNICATIONS

A communication from Mr. W. H. Crim, Jr., regarding his resignation from the Chapter was read.

NEW BUSINESS

With reference to the resignation of Mr. W. H. Crim, Jr., on motion duly made, seconded and carried, the Chair was directed to appoint a committee to request Mr. Crim to reconsider his resignation. The Chair appointed Mr. Hooser on this committee.

The report of Mr. Fred H. Meyer, who was appointed to investigate the practicability of combining with the S. F. Architectural Club, was read.

A general discussion followed and Mr. Meyer was thanked for his report.

The Chapter's Trustees for the books in care of the Architectural Club were directed to report to the Chapter on the condition of the books and the financial and general condition of the Architectural Club.

With reference to the correspondence between Mr. Bakewell and Mr. Allison regarding the amendment to the License Law, it was duly moved, seconded and carried that no action be taken in regard to the revision of the Architects' License Law for the present, owing to the chaotic conditions due to the war, and that the Secretary of the Southern California Chapter be notified accordingly.

NOMINATION OF OFFICERS

The following nominations for officers for the ensuing year were made:

Mr. Faville, duly seconded, nominated Mr. Schnaittacher for President. There being no other nominations, the nomination was declared closed.

Mr. Mooser, duly seconded, nominated Mr. Hays for Vice-President. There being no other nominations, the nomination was declared closed.

Mr. Schnaittacher nominated Mr. Bruce for Secretary, and the nomination was seconded, and there being no other nominations, the nomination was declared closed.

Mr. Mathews, duly seconded, nominated Mr. Faville for a Director for three years, and

Mr. Scholz, duly seconded, nominated Mr. Mooser for a Director for three years. There being no other nominations, the nominations were declared closed.

BALLOTS ON CONSTITUTION AND BY-LAWS

The ballots on the Constitution and By-Laws having been received and it having been determined that this number was insufficient to determine the result, the Chair was directed to appoint a committee to see that all members who had not cast their ballots should do so before the next meeting of the Chapter, when the ballots would be counted.

It was also decided, on motion duly made, seconded and carried, that the slip requesting a vote on the alternative regarding the committee on competitions, be not considered in the final balloting.

After the business meeting, Mr. Joshua H. Vogel, Associate Secretary of the Y. M. C. A. in charge of the Western Department of Construction, and who has practiced as an architect in Japan, gave a very interesting talk on Japanese architecture. He gave a historical sketch of the original and indigenous Shinto style and described the distinctions between it and the later imported Buddhist style which came from the Asiatic continent.

The question was raised by the speaker as to whether it is best that the Japanese should adopt Occidental architecture as a whole or start from the foundation of their own historical past and assimilate such part of our western systems of construction as may be necessary in order to accommodate modern needs. The hope was generally expressed that the requirements of modern conditions would not make it necessary to abandon the historical architectural inheritance of the Japanese and that there may be a welding of the styles of the East and the West.

The talk and discussion were much enjoyed and at the conclusion Mr. Vogel was given the thanks of the Chapter.

ADJOURNMENT

There being no further business before the Chapter, the meeting adjourned at 10:30 p.m.

Minutes of San Francisco Chapter, A. I. A.

(*Continued from Page 202*)

October 17, 1918.

The Annual Meeting of the San Francisco Chapter of the American Institute of Architecture was held at the Palace Hotel, Room "B," on Thursday afternoon, October 17, 1918, at 3 p.m. Mr. Sylvain Schnaittacher, Vice-President, called the meeting to order at 3 p.m.

The following members were present: Morris M. Bruce, J. W. Dolliver, James T. Narbett, William Mooser, Smith O'Brien, T. Paterson Ross, G. A. Lansburgh, George Rushforth, Sylvain Schnaittacher, Henry G. Smith, Arthur G. Scholz, George H. Sanders, Charles P. Weeks.

MINUTES

The minutes of the meeting held on September 19, 1918, were read and approved.

STANDING COMMITTEES

The following standing committees submitted their annual written reports which were ordered received and placed on file: Materials Exhibit Committee, Committee on Relations with Coast Chapters, S. F. Sub-Committee on Competitions, Chapter Advisory Committee on Competitions.

No reports were received from the following standing committees: Committee on Municipal Matters, Committee on Programs of Meetings, Committee to Study Building Conditions, Committee on Books with S. F. Architectural Club, Committee on Legislation, Committee on Education.

REPORTS OF OFFICERS

The Secretary read the annual report of the Board of Directors and of the Secretary-Treasurer, both of which were read and ordered received and placed on file.

The President's annual report was read and ordered received and placed on file.

COMMUNICATIONS

A committee from Mr. J. A. Drummond, Editor of the "Architect," relative to the elimination of the heading "Official Organ of the San Francisco Chapter, A. I. A." from the "Architect"; from Mr. H. F. Withey, Secretary of the Southern California Chapter, A. I. A., asking for the balance of the account in re Assembly Bill No. 1126; from Mr. E. C. Kemper, Executive Secretary of the A. I. A., relative to the delinquency of the Chapter's Institute Members; from the Home Industry League, extending a cordial invitation to the members to attend the next weekly luncheon of the League which was to be devoted to the architects.

NEW BUSINESS

It was moved by Mr. Lansburgh, and duly seconded, that a committee be appointed by the President to formulate a plan for collecting dues from delinquent members.

The Chair announced that this Chapter, having supplemented a protest of the New York Chapter against the erection of the Barnard Statue of Lincoln in London, that Senator Phelan of California, in view of this action, had introduced a bill in the United States Senate requiring that all matters of this nature be approved by the National Commission on Fine Arts. On motion duly made, seconded and carried, the Secretary was directed to express to Senator Phelan the appreciation of this Chapter for his action.

It was moved, seconded and carried that the report of the Committee on Institute Relations be spread on the minutes and printed and copies sent to all members of the Chapter.

The number of ballots received for the revised Constitution and By-Laws of the Chapter being insufficient, it was duly moved, seconded and carried that the time for opening the ballots be extended until the next meeting.

A vote of thanks was tendered to the administration of last year for their services during the term.

It was duly moved and seconded that Weeks and Day be congratulated on their winning the competition for the Capitol Extension Buildings in Sacramento.

It was duly moved, seconded and carried that the Chapter indicate its appreciation by spreading on the Minutes of the Chapter the names of the following members who have, up to this date, volunteered and been accepted for War Service:

Harris C. Allen, U. S. A.
E. P. Antonovich, U. S. A.
John A. Baur, U. S. A.
John Bakewell, Jr. (Red Cross.)
Ernest A. Coxhead (Y. M. C. A.)
F. T. Georgeson, U. S. A.
John Davis Hatch, U. S. A.
John Galen Howard (Red Cross).
Ernest L. Norberg, U. S. A.
A. D. Nicholson, British Army.
Sidney B. Newsom, U. S. A.
Walter H. Parker, U. S. A.
W. O. Raiguel, U. S. A.
Walter D. Reed, U. S. A.

ELECTION OF OFFICERS

The next order of business being the election of officers for the ensuing year, the Secretary was directed to cast the ballot for the regular nominees, whereupon the Chair announced that the following had been elected to serve the Chapter for the ensuing year:

Sylvain Schnaittacher, President; Wm. C. Hays, Vice-President; Morris B. Bruce, Secretary; and William B. Faville and William Mooser, to serve as members of the Board of Directors for three years.

Mr. Schnaittacher, accepting the Presidency, delivered an address.

ADJOURNMENT

There being no further business before the Chapter, the meeting adjourned at.. .... p.m.

MORRIS M. BRUCE, Secretary.

Subject to Approval. . .. ., 1918.

Minutes of Southern California Chapter

The twelfth annual meeting of the Southern California Chapter, American Institute of Architects, was held at the office of Mr. J. E. Allison, 1405 Hibernian Building, Tuesday evening, October 8th, 1918.

The meeting was called to order by the President, Mr. J. J. Backus, at 7:30 p.m., the following members being present: J. E. Allison, J. J. Backus, Lyman Farwell, John Krempel, S. T. Norton, H. M. Patterson, A. Wackerbarth, H. F. Withey.

Minutes of the 119th meeting were read and approved.

For the Board of Directors, the Secretary presented two recommendations, the first being to advance Mr. Theodore Eisen to the position of Honorary Chapter member. The President thereupon expressed his sentiments in favor of the recommendation, after which it was moved by Mr. Patterson, seconded by Mr. Krempel and unanimously carried, that the recommendation of the Directors be accepted.

The second recommendation was that in view of the probable adoption of the Constitution and By-Laws, in conformity with which the fiscal year would begin on January first, 1919, that the present fiscal year should be extended to December 31st, 1918. The President outlined the advantages of this recommendation, and there being no dissent by those present, the Chair pronounced the recommendation as accepted and approved. In consequence of which action, the election of officers, annual reports, etc., were postponed till the January meeting.

No committee reports were made.

Under "Communications" the Secretary presented a letter from the City Clerk in which it was stated that the City Council had denied the Chapter's petition for a Charter Amendment to be placed upon the November ballot.

Under "Unfinished Business" the revised Constitution and By-Laws were presented. It was moved by Mr. Patterson, duly seconded and unanimously carried, that the same be adopted by this Chapter.

Following a general discussion on the subject of future meetings, it was agreed that they should be held in conjunction with a dinner, as has previously been the custom, and also that a discussion of the Housing and Hotel Law Amendments be entered into as an item of business for the next regular meeting.

There being no further business, the meeting adjourned at 8:45 p.m.

H. F. WITHEY, Secretary.

Minutes of Oregon Chapter

Held at 1122 Board of Trade Building, Portland, Oregon, September 12th, 1918.

Meeting called to order by President Jacobberger, with the following members present: Webber, Naramore and Smith.

The treasurer having reported that the Chapter was out of funds, with bills owing, it was decided to ask all members to pay their dues in advance for the coming year. The members present paid their dues in this manner and expressed the hope that all members would cooperate in this matter.

Minutes of Special Meeting of Oregon Chapter, A. I. A.

Held at Commercial Club, Portland, Oregon, September 16, 1918.

Members present: Jacobberger, Webber, Lawrence, Whitehouse, Post, Holford, Naramore and Smith.

The report from the Committee on Housing was presented and approved.

On motion by Whitehouse, seconded by Holford, Mr. Lawrence was authorized to report that the Chapter was willing to offer its services as follows:

The Housing Committee of the Oregon Chapter of the American Institute of Architects offers free professional advice on Housing

(*Continued on Page 206*)

THE ARCHITECT

VOL. XVI SAN FRANCISCO, OCTOBER, 1918 NO. 4

Editorial.

IN 1916 the people of California authorized the issuance of bonds to the amount of $3,000,000.00 for State Buildings to be erected in Sacramento. The site, donated by the City of Sacramento, consists of two entire blocks of land opposite the west (main) front of the State Capitol, bounded by Ninth, Tenth, L and N Streets. In 1917 a competition was authorized for the selection of an architect to design these buildings. By the terms of the programme, issued December 15, 1917, the architectural advisor was the State Architect, George B. McDougall. The competition was open to all citizens of the United States qualified to practice architecture under the law of California. The Jury was composed of seven members, as follows: the Governor of California, William D. Stephens; the Chief Justice of the State Supreme Court, F. N. Angelotti; the State Librarian, Milton J. Ferguson; the Chairman of the State Board of Control, Marshall de Motte; two architects to be chosen from east of the Mississippi River, William M. Kendall and Henry Bacon, of New York; and one architect to be chosen from California, Sylvain Schnaittacher, of San Francisco. The competition was conducted in two stages. In the first stage, which closed June 1 of this year, forty two architects competed. The second stage, which closed September 15, was open to eight architects selected from the first stage, each of whom received the sum of $2,500.00. The following were the participants in the second stage: Dennison & Hirons, New York; James Gamble Rogers, New York; Tracy & Swartwout, New York; William D. Hewitt and Percy Ash, N. C. Curits, Associate, Philadelphia; Adolf Scherrer, Indianapolis; Bliss & Faville, San Francisco; Ward & Blohme, San Francisco; Weeks & Day, San Francisco. Early in October Weeks & Day were announced as winner of the competition.

The subject of the competition was two buildings, to each of which was allotted a site about 320 by 340 feet. The block of M Street between Ninth and Tenth Streets which separates these two sites and is on the axis of the Capitol dome has been relinquished by the City of Sacramento, but it was required that it be kept open sufficiently for the access of vehicles to the Capitol. The Capitol building is removed about 360 feet from the line of the sidewalk passing in front of the proposed structures. One building, known as the "Library and Courts Building," is to house the State Library, the State Supreme Court, and the District Court of Appeal, with their accessories. The other, known as the "Office Building," is to provide quarters for miscellaneous State departments and commissions. Complete freedom on the competitors' part was restricted by two mandatory provisions of the programme relative to the Library and Courts Building; namely, that the Courts be placed on the top floor, and that the book stacks be located near the center of the structure.

The illustrations of the foregoing pages present practically in its entirety the winning scheme of Weeks & Day, with enough to indicate the nature of that of each of the seven remaining competitors; also examples showing the character of the State Capitol adjoining, a building constructed during the years from 1860 to 1874.

Several remarks might be made in general upon the competition and its conduct. The programme failed to indicate that the existing trees of the Capitol Park are so thick that from no point will it be possible to see the Capitol and the new buildings together. Assuming that these trees are to remain, solicitude in regard to the relations of the new buildings to the old is purely academic. Perhaps we should assume instead that, as so frequently happens in American cities, "improvement" signifies cutting down trees. In the matter of drawings to be rendered it would seem that excessive demands were made upon the competitors, particularly in the first stage, where the number and finish of sheets required were unwarranted. The volume of correspondence from competitors relative to the programme indicated a lack of completeness and precision in defining the usese of various rooms, many of them unusual ones. The limitations above mentioned upon the freedom of the competitors in solving the difficult Library and Courts Building brings up a subject open to considerable discussion. It would seem in principle that the very object of a competition is to obtain for the client the freest and widest possible range of suggested solutions from competitors, and that the imposition of an avoidable restriction might forestall a brilliant stroke of genius which would never have occurred to client, advisor, or jury. On the other hand, if there do exist prepossessions on the part of anybody which it is known will have any effect upon the judgment. their clear statement, as in this case, is the only fair policy toward competitors. The report of the jury was inadequate as a statement of reasons leading to the selection of the winning design. Lastly, it is to be regretted that neither public nor profession really had an opportunity to review the competition. The drawings were displayed only at Sacramento, and the exhibition was closed before it was even known to have opened.

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Minutes of Oregon Chapter

(*Concluded from Page 203*)

to any Portland organization engaged in an approved Housing Venture as a wartime measure.

Should actual maps, layouts and plans be needed at the minimum cost for the success of any approved Housing Venture, the Oregon Chapter will secure such maps, layouts and plans at cost of production. By approved Housing Venture is meant one that is organized to operate with no profits, with no exploitation of the workers —with assured protection of investors, and with a standard of Housing at least equal to the standard of building laid down by the Housing Bureau of the U. S. Government.

The regular monthly meeting of the Oregon Chapter, when the nomination of officers for the coming year will be in order, will be held at the University Club on Thursday, September 19th, at 8 p.m. Meeting will be held in Mr. Naramore's rooms. Your attendance is earnestly requested.

ALFRED H. SMITH, Secretary.

Minutes of Regular Meeting of the Oregon Chapter, A. I. A.
Held at University Club, September 19, 1918.

Meeting opened by President Jacobberger with the following members present: Naramore, Bennes, Schacht, Lazarus, Lawrence, Holford, Whitehouse, Webber, Doyle and Smith.

On motion by Lawrence, seconded by Whitehouse, the Housing Code Committee was requested to send out copies of the Housing Code, asking members to read same and submit objections in writing in three days after date of mailing.

On motion by Lawrence, seconded by Naramore, the President added the names of Naramore, Bennes and Whitehouse to the Housing Committee.

On motion by Holford, seconded by Whitehouse, the names of all the present officers of the Chapter were placed in nomination for re-election for the coming year.

ALFRED H. SMITH, Secretary.

P. S.—Minutes of last meeting to be corrected to read: "The Housing Committee of the Chapter acting for the Chapter, etc."

OFFICIAL POST OFFICE STATEMENT

Statement of the ownership, management, circulation, etc., required by the Act of Congress of August 24, 1912, of THE ARCHITECT, published monthly at San Francisco, Cal., for October 1, 1918, State of California, City and County of San Francisco. Before me, a Notary Public in and for the State and county aforesaid, personally appeared J. A. Drummond, who, having been duly sworn according to law, deposes and says that he is the owner of THE ARCHITECT and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to-wit: 1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Name of Publisher, The Architect Press; postoffice address, San Francisco, Cal.; Editor, Irving F. Morrow, San Francisco, Cal.; Managing Editor, J. A. Drummond, San Francisco, Cal.; Business Manager, J. A. Drummond, San Francisco, Cal. 2. That the owners are (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock.): J. A. Drummond, 245 Mission Street, San Francisco. 3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are (If there are none, so state): None. J. A. Drummond, Owner. Sworn to and subscribed before me this 4th day of October, 1918. (Seal) W. W. Healey, Notary Public in and for the City and County of San Francisco, State of California. My commission expires August 28, 1921.

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ARCHITECTS' REFERENCE INDEX

Containing List of Manufacturers, Their Representatives and Serviceable Literature

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Keasbey & Mattison Co., Ambler, Pa.

J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Illustrated and descriptive pamphlet, 7¾x10¾, 8 pp. Pamphlet, 4x8½, 8 pp. Price list, 3½x6¼. Literature of various sizes, samples, etc. "Service Sheets," working drawings, details of application, size 16½x21½.

ASBESTOS CORRUGATED SHEATHING

Keasbey & Mattison Co., Ambler, Pa.

J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Descriptive catalogue, 5¼x8¼, 24 pp. Catalogue of details and specifications for application of roofing and siding, size 8½x11, 40 pp. Lists of buildings covered. Price lists, 3½x6¼, 6 pp.; and literature of various sizes, samples, etc. "Service Sheets," working drawings, details of application, size 16½x21½.

ASBESTOS SHINGLES

Keasbey & Mattison Co., Ambler, Pa.

J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Illustrated catalogue. Detail specifications, 8x10, 20 pp. Descriptive catalogue, various types of roof covering, 5¼x8¼. Various pamphlets, 3¾x6. Current price lists, 3½x6¼, 6 pp. Lists of buildings and literature, various sizes, samples, etc. "Service Sheets," working drawings. Detail of application, size 16½x21½.

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Pacific Coast Steel Co., Rialto Building, San Francisco, Cal.
Square, round and corrugated.

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United Materials Co., 5 Crossley Bldg., San Francisco, Cal.
Catalogue on "Enameled Brick for Facing," illustrating and listing names of prominent buildings finished with Enameled Brick. 5x7½, 48 pp.

BRICK, FIRE AND REFRACTORIES

Los Angeles Pressed Brick Co., Frost Bldg., Los Angeles, Cal.

United Materials Co., 5 Crossley Bldg., San Francisco, Cal.
Descriptive catalogue, 5x7, 54 pp.

Simons Brick Company, 125 West Third Street, Los Angeles, Cal.

BRICK, PRESSED

Los Angeles Pressed Brick Co., Frost Bldg., Los Angeles, Cal.

United Materials Co., 5 Crossley Bldg., San Francisco, Cal.
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Simons Brick Company, 125 West Third Street, Los Angeles, Cal.

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O'Hara & Livermore, 522 Sutter Street, San Francisco, Cal.
O'Hara & Livermore, 253 East Colorado Street, Pasadena, Cal.

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Keasbey & Mattison Co., Ambler, Pa.

J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Descriptive Pamphlet, 3½x6. 12 pp. Descriptive, 4x8½. 8 pp. "Service Sheets" working drawings. Detail of application. 16½x21½.

Walter Both, 1645 Mission Street, San Francisco.

ELEVATORS

Otis Elevator Co., Eleventh Avenue and 26th Street, New York.

Otis Elevator Co., 2300 Stockton Street, San Francisco, Cal. Offices in all principal Coast cities.
Otis Electric Traction Elevators. Bulletin. 6x9 in. 28 pp.

ESCALATORS

Otis Elevator Co., Eleventh Avenue and 26th Street, New York.

Otis Elevator Co., 2300 Stockton Street, San Francisco, Cal. Offices in all principal Coast cities.
Otis Escalators. Bulletin. 6x9 in. 36 pp.

FACTORY EQUIPMENT

Manufacturing Equipment and Engineering Co., Framingham, Mass.

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Bulletins and various literature. "Sanitary Washbowls," 6x9 in., 8 pp. "Metal Lockers," 6x9 in., 8 pp.; "Plumbing Fixtures," 6x8 in., 8 pp.; "Metal Stools and Chairs," 6x9 in., 8 pp.; "Metal Storage Racks," 6x9 in., 16 pp.; "Bubbling Fountains," 6x9 in., 4 pp.

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Catalogue of Moulding Columns, Doors and General Mill Work. 7x10. 94 pp.

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San Francisco Office, A. L. Greene, Mgr., 269 Eighth Street.
Kyanize Enamel. Complete specifications. Booklet. 5x7 in. 20 pp.
Kyanize White Enamel. Directions. Circular. 3½x6 in. 8 pp.
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Catalogues, literature and color cards.

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San Francisco Office, James Hambly & Sons, 268 Market Street, San Francisco, Cal.

Los Angeles Office, 447-449 E. Third Street, Los Angeles, Cal.
Bay State Brick and Cement Coating. Catalogue. 4x9. 24 pp. Color plates.
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Pacific Sanitary Mfg. Co., 67 New Montgomery Street, San Francisco, Cal.

Northern Manager, H. L. Frank, 80 Front Street, Portland, Ore.

T. A. Williams, Scott Building, Salt Lake City, Utah.
General catalogue "C." 6½x9 in. 176 pp. Indexed.
School Sanitation Book. 6x9. 32 pp.
Export Catalog "E." 6x9. 160 pp.
Book of Bath Rooms (for clients). 6x9. 56 pp.

Standard Sanitary Manufacturing Co.
San Francisco Warehouse, Display Rooms and Offices, Bluxome St.
Los Angeles Warehouse, Display Rooms, Offices, Mesquit St.
Seattle, 5300 Wallingford Ave.
General Catalogue "P," 9x12, 674 pp. General Catalogue "PF," 9x12, 329 pp. Factory Sanitation Catalogue, 9x12, 36 pp. Built-in Bath, 9x12, 37 pp. Pottery Catalogue Sanitary Earthenware, 9x12, 38 pp. Shower Booklet, 3½x6, 19 pp. Efficiency Kitchen Book — Modern Kitchen Equipment, 5x7, 15 pp. Plumbing Fixtures for the Home, 5x7¾, 63 pp.

PIPE, WOOD

Pacific Tank & Pipe Co., 318 Market Street, San Francisco, Cal.
Catalogue of wood pipe and tanks for all purposes. 4x8¾ in. 40 pp.

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Catalogue Treatise on Portable House. Suitable for any location. Size 4x9. 12 pp.

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Kroeschell Bros. Ice Machine Co., 472 West Erie St., Chicago, Ill.
J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Catalogue descriptive of installation for various purposes and types of buildings, 6x9 in., 12 pp. "Hospital Refrigeration," 6x9 in., 8 pp. "Marine Refrigeration," 6x9 in., 12 pp.

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W. P. Fuller & Co. Principal Coast cities.
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Taylor Co., N. & G., 300 Chestnut Street, Philadelphia, Pa.
J. A. Drummond, 245 Mission Street, San Francisco, Cal.
A Guide to Good Roofs. Booklet. 3⅜x5⅞ in. 24 pp.
Selling Arguments for Tin Roofing. Booklet. 6x9¼ in. 80 pp.
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Standard Specifications for Tin Roofing Work. 7½x9 in.
Current Price List.

SCHOOL FURNITURE

Leonard Peterson & Co., 1234-48 Fullerton Ave., Chicago, Ill.
J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Catalogue No. 8, complete equipment for Domestic Science and Manual Training Departments, 7x10 in., 64 pp.
Leonard Peterson & Co., 1234-48 Fullerton Ave., Chicago, Ill.
J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Laboratory Furniture Catalogue No. 9 for Chemistry, Physics, Biology, Physiography, Domestic Science, Pathology, Hospitals, Filtration, City Testing, and Industrial Plants. 7x10 in., 95 pp.

SCREENS—FOR METAL SASH

Richard Spencer, 932 Hearst Building, San Francisco, Cal.

SEWER PIPE AND CLAY PRODUCTS

Gladding, McBean & Company, Crocker Bldg., San Francisco, Cal.
Los Angeles Office, Trust and Savings Bldg.
Price list No. 45 on Clay Products. 5x7½ in. 70 pages, containing illustrations.
Los Angeles Pressed Brick Co., Frost Building, Los Angeles, Cal.
United Materials Co., 5 Crossley Bldg., San Francisco, Cal.
Hand book and price list of sewer pipe, flue lining, chimney pipe and interlocking brick. 4x7. 22 pp.

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Hollow Tile Fireproofing. General catalogue. 5x7 in. 54 pp.
Simons Brick Company, 125 West Third Street, Los Angeles, Cal.

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United Materials Co., 5 Crossley Bldg., San Francisco, Cal.
Catalogue showing attractive application of details and specifications for roofing tile. 8x11 in. 32 pp.
Simons Brick Company, 125 West Third Street, Los Angeles, Cal.
Fibrestone & Roofing Co., 10th and Howard Sts., San Francisco, Cal.

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San Francisco Office, A. L. Greene, Mgr., 269 Eighth Street.
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Kyanize Enamel. Complete Specification Booklet. 5x7. 20 pp.
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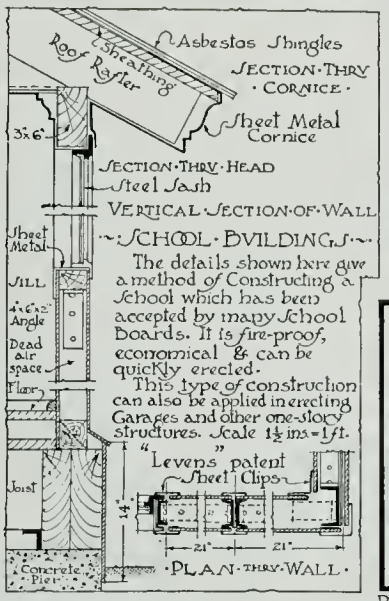

SCHOOL BUILDINGS

The details shown here give a method of Constructing a School which has been accepted by many School Boards. It is fire-proof, economical & can be quickly erected.

This type of construction can also be applied in erecting Garages and other one-story structures. Scale 1½ ins = 1ft.

DETAILS OF SCHOOL; CAMDEN, N.J.

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COST $3200.

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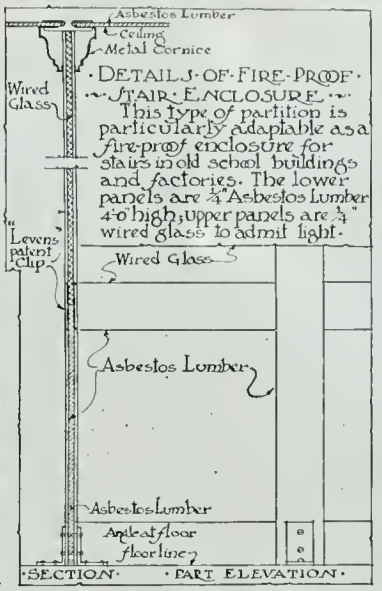
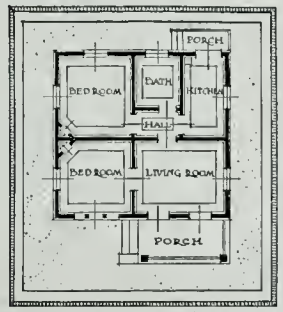


DETAILS OF FIRE-PROOF STAIR ENCLOSURE

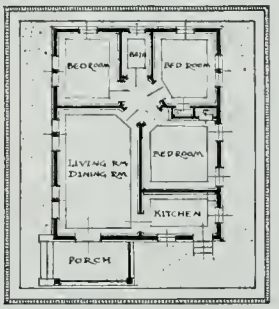
This type of partition is particularly adaptable as a fire-proof enclosure for stairs in old school buildings and factories. The lower panels are 4" Asbestos Lumber 4'-0" high; upper panels are ¼" wired glass to admit light.

DETAILS OF STAIR ENCLOSURE

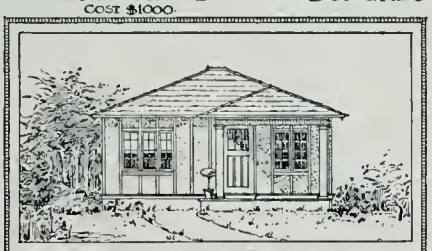


PLAN TYPE "B"
COST $1000.

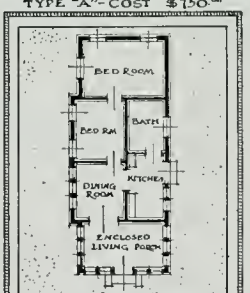
BUNGALOW COLONY AT STONE HARBOR N.J.
TYPE "A" COST $750.



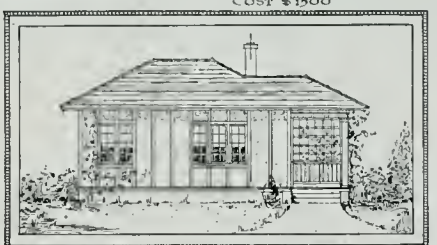
PLAN TYPE "C"
COST $1500



ELEVATION OF BUNGALOW
TYPE "B" COST $1000.
ASBESTOS LUMBER ASBESTOS SHINGLES



PLAN TYPE "A"
COST $750.

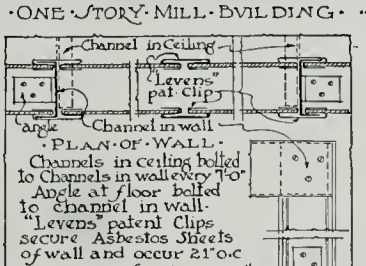


ELEVATION OF BUNGALOW
TYPE "C" COST $1500.
ASBESTOS LUMBER ASBESTOS SHINGLES

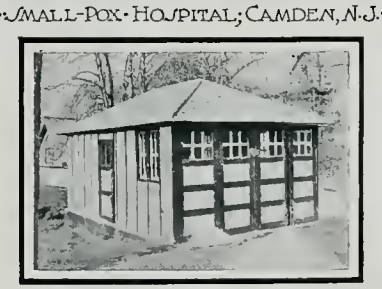
ONE STORY MILL BUILDING

SMALL-POX HOSPITAL; CAMDEN, N.J.

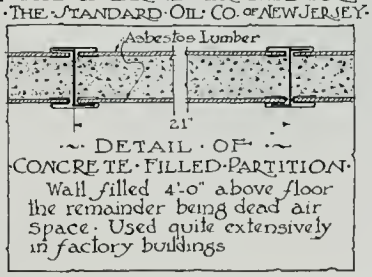
TYPE OF GARAGES ERECTED FOR THE STANDARD OIL CO. OF NEW JERSEY


Channel in Ceiling
"Levens" pat Clip
angle
Channel in wall
PLAN OF WALL
Channels in ceiling bolted to Channels in wall every 7'-0"
Angle at floor bolted to channel in wall.
"Levens" patent Clips secure Asbestos Sheets of wall and occur 21"0.c
SECTION floor

DETAILS OF DRYING HOUSE

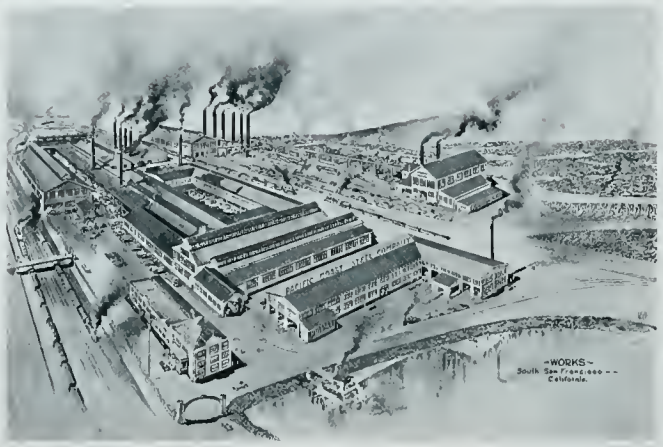


PRIVATE GARAGE
APPROX. COST $600.



DETAIL OF CONCRETE FILLED PARTITION

Wall filled 4'-0" above floor the remainder being dead air space. Used quite extensively in factory buildings



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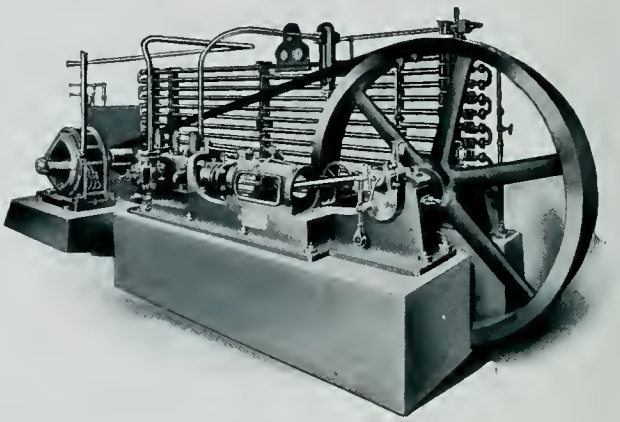

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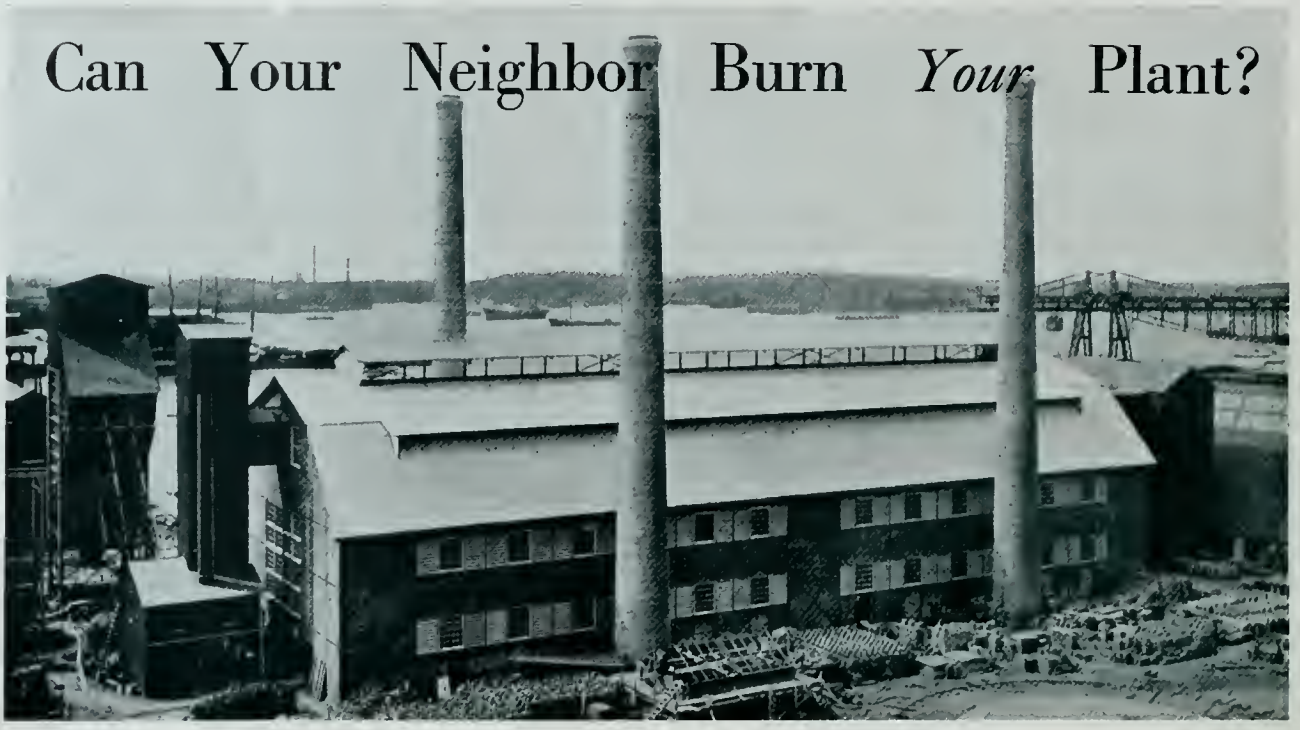

CAN flying sparks or burning brands from fire in an adjoining plant set *your* roof in flames—or will heat radiating from nearby fire damage your building or equipment?

Can the scorching summer sun—the tight freezes of severe winters—the sharp fall winds—the heavy spring rains—heavy falls of snow—can these things injure your roof? Does your roof show signs of wear and deterioration from year to year? Are you digging into your profits to pay paint bills—repair bills and perhaps even an occasional re-roofing?

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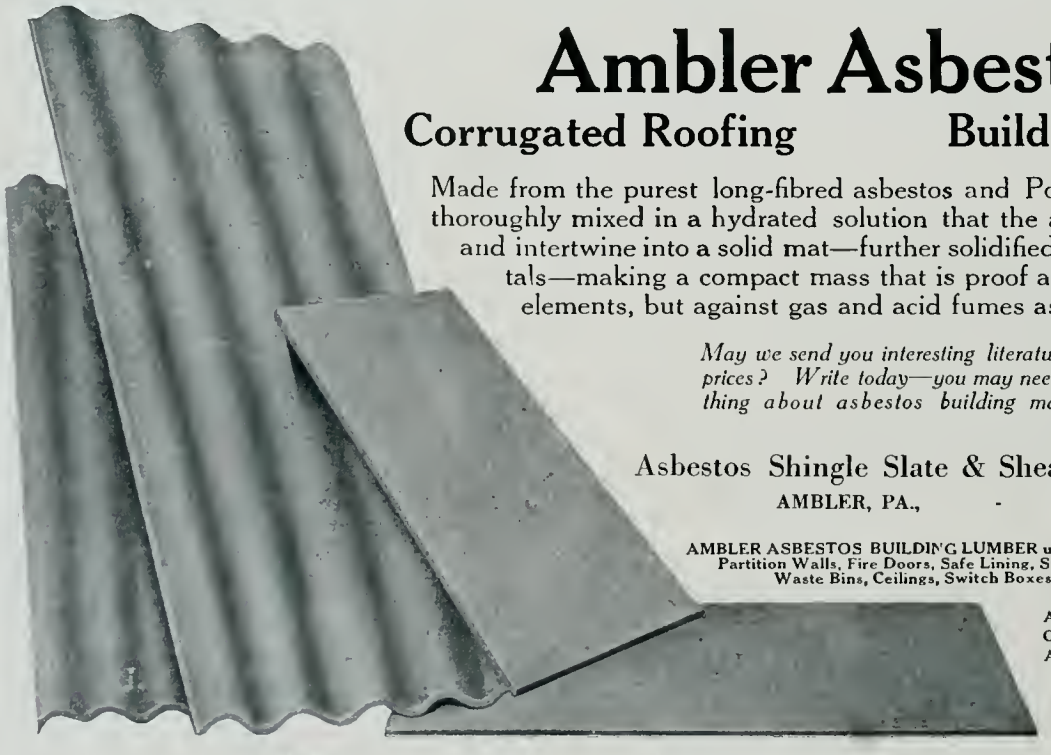

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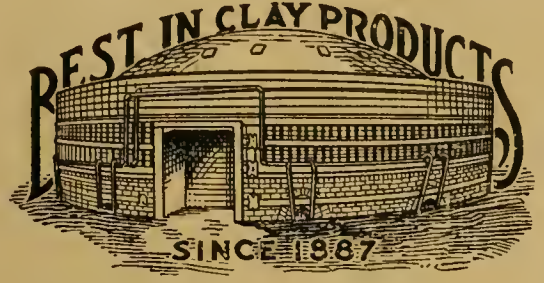

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VOLUME XVI · NUMBER 5
NOVEMBER 1918

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Vol. XVI. No. 5

THE ARCHITECT

THE ARCHITECT PRESS
Publishers

IRVING F. MORROW
EDITOR

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¶ Published in the interest of the architectural profession, on the first of each month, at 245 Mission Street, San Francisco. Entered as second class matter August 4, 1911. Subscription price in the United States and possessions, $5.00 a year; foreign and Canadian, $6.00 a year. Single copies, $1.00.

¶ Changes in, or copy for new advertisements, must reach the office of publication not later than the fifteenth of the month preceding issue. Advertising rates and any other information will gladly be given on application.

¶ The editor will be pleased to consider contributions of interest to the profession. When payment for same is desired, this fact should be stated.

THE FERRY BUILDING FROM COMMERCIAL STREET, SAN FRANCISCO

THE ARCHITECT

VOL. XVI SAN FRANCISCO, NOVEMBER, 1918 NO. 5

San Francisco Harbor

TO the traveler who has toured Europe purchasing the necessary experience and appreciation in the convenient forms offered by Messrs. Baedeker and Thos. Cook, the norm of a beautiful harbor is the Bay of Naples. And, indeed, there is no gainsaying the beauty of that site. The turquoise water and sky, the delicate curve of shore, the yellow city climbing up the hills, the majestic sweep of Vesuvius, wafting from its summit just the necessary wisp of smoke to complete a perfect composition — all this is familiar even to those whose foot has never trod foreign shores. So far, indeed, has it become a generally accepted symbol of beauty that it has received even commercial recognition, and our pigment manufacturers put forth pans and tubes of "Naples yellow" in homage to the rich but soft color of its closely built hills.

Other seaports there are, of course, which dispute with Naples the supremacy in beauty. Rio de Janeiro and Sydney put forth claims on whose validity we are not qualified to pass. But our own experience furnishes one harbor which, in natural beauty at least, rivals if it does not surpass the region so dear to the luxury-loving Romans of the greatness and decline. People who ferry between San Francisco and the east bay shore twice daily with their noses in the morning and evening papers respectively may not guess that we refer to San Francisco Bay. Constant association renders commonplace even those broad expanses of island-dotted water, and the long enclosing ranges of hills, gently modeled in mass and delicately modulated in profile. Such things seem to be appreciated in general only by those who have been assured of their beauty upon recognized authority, and have traveled half way around the globe to see them. Some day the ubiquitous Baedeker or his Allied successor and the already Allied Thos. Cook will discover San Francisco Bay; and then, perhaps, that clear cerulean color which freshens water and hills and sky may be obtainable in pans and tubes as "San Francisco blue." Not inadvisedly do we emphasize natural beauty alone. It can scarcely be maintained that the hand of man has been laid upon this scene with the same affection, not to speak of intelligence, that has usually characterized its activity in the old world. This may have something to do with the neglect of Messrs. Baedeker and Thos. Cook and their followers. It is only fair to admit, however, that in these matters time is an element of the utmost importance, and that our temporal background is really surprisingly short.

Those accustomed by long association to the harbor of San Francisco come to take as a matter of course not only its beauty, but its natural advantages as well. We are apt to think of a harbor as a body of water where nature supplies all the necessities of shipping but the piers. It comes as somewhat of a surprise, on seeing many of the foremost of foreign as well as of domestic ports, to realize that they are harbors at all only by virtue of extensive breakwater constructions or of colossal feats of dredging, or of both. Yet here is one of the largest landlocked bodies of water in the world, open to the ocean through a passage but a mile in width, and so sheltered throughout the year against storms that the annual damage to shipping from this source is negligible. Along the San Francisco side the scouring of the tide maintains a depth ranging from 33 feet at the seawall, which is the minimum required to be maintained by law, to from 50 to 75 feet at the outer ends of the piers. The extreme tidal range is only about eight feet, and the mean less than five. All this is the gift of nature, with no expenditure of effort or money on the part of man. Behind and directly tributary to this bay are the two great valleys of the Sacramento and the San Joaquin Rivers, which drain more than half of the productive area of California. In addition it is the terminal point of four systems of railroads.

Of this vast harbor area we are here concerned only with that portion under the jurisdiction of the Board of State Harbor Commissioners; namely, the waterfront of the City and County of San Francisco from the Presido, near the Golden Gate, on the north, around the Bay shore to the boundry line between San Francisco and San Mateo Counties on the south. On the other side of the Bay, at Oakland, Richmond, and elsewhere, local bodies administer their respective harbor facilities. Unlike most of the leading seaports of the United States, San Francisco enjoys the advantage of a harbor front that is owned and operated by the public. The title of the property is in the State of California, and harbor affairs are administered by a board of three Commissioners appointed by the Governor of the State and holding office during his pleasure. Under the law the harbor has been self-supporting since its inception. All the cost of construction and maintenance of seawalls, buildings, wharves, etc., as well as the operating expenses are paid out of harbor receipts.

The sheds in the harbor are almost exclusively one-story, constructed of timber, with an elevated passenger gallery extending along one side. In general each pier is provided with a railroad track down each side, one surface and one depressed, connecting with the State Belt Railroad operated by the Board and extending

around the entire waterfront. In selecting the type of support for wharf structures it has been the policy of the Board to follow in each instance the best engineering opinion available. The waterfront varies greatly in its foundations. In a few places it is rocky or hard. In most places the mud is very deep, and in certain sections extremely soft. Most of it is filled ground, and frequently localities near each other differ greatly because of the jutting out of rock ledges from the hills formerly or now along the front. The engineer necessarily suits his plans to the natural conditions, and consideration must be taken of the engineering cost as well as of the engineering possibilities. Where the engineer has so recommended the Board has used reinforced concrete columns of from three to four feet in thickness going down to the bottom of the Bay. This was possible because of the firm foundation in certain localities. Other piers have been built with concrete supports sunk deeply into the mud, but resting ultimately on wooden piles driven below the mud line, in cases where it was impossible, consistently with the factor of engineering cost, to go down to a solid foundation. Indeed, in many localities no solid foundation has ever been reached by the longest wooden piles ever driven, over 115 feet in length. In certain cases reinforced concrete piles made on shore have been driven into place by a steam hammer, no wood being used under them. Such construction has been employed for the supports of skyscrapers in San Francisco. In other localities of deep mud foundations the engineer has used creosoted wooden supports. It is estimated that this type of construction will last in these waters from fifteen to twenty years. With the present revenue system all such piers will out of their surplus of earnings provide a fund for their replacement when worn out, and they are therefore in effect perpetual. The Board maintains that whether or not concrete piers will last practically forever, as claimed by some of their advocates, or even as long as creosoted wood, is entirely a matter of experiment and experience. They are comparitively of recent use in the United States, and therefore experience will have to be awaited before results can be positively stated.

LE HAVRE—COMMERCIAL BASIN

Our particular concern with the port of San Francisco at the present time, however, is not its organization and equipment to meet the requirements of shipping, nor even the practical problems of construction involved, but rather its purely architectural aspects. For the design of all structures erected by the Board of State Harbor Commissioners the State is responsible. Mr. Frank G. White is Chief Engineer for the Board in charge of all construction. (Acknowledgment should here be made that the entire contents of this issue of the Architect relative to the San Francisco harbor have been made available through Mr. White's generous co-operation). The Board maintains its own drafting department in San Francisco, subsidiary to the State Department of Engineering, with Mr. A. A. Pyle as Architectural Designer. Most of the work erected by the Board is designed in this office; although the drawings for a few buildings have come from the office of the State Architect at Sacramento, and certain others have been executed by the Board's drafting department from sketches furnished by the State Architect. The Ferry Building is the work of the late E. Page Brown.

One of the memorable features of that unrealized dream, the Report on a Plan for San Francisco, by Daniel H. Burnham, was the suggested treatment of the waterfront. It will be remembered that the Report describes somewhat in detail an Outer Boulevard which was to encircle the city, and it is in this connection that the matter occurs. "Taking the foot of Market Street as a starting point," it says, "the Outer Boulevard runs north along East Street (now happily the Embarcadero), traversing the docks and passing around the base of Telegraph Hill. The direction of this part follows the line of the waterfront; where it passes close to the wharves it can not take the same level as the street, but must be elevated. It is therefore proposed to carry it over the warehouses, its roadway forming their roofs. This will give the city an extensive line of fireproof storage property and will enhance the value of neighboring realty. This elevated part of the boulevard may be beautifully treated. There should be enough space to allow a foot or two of earth for planting. It will then be an ideal place for a ride or a walk, the passer-by looking down on the shipping below, and when he tires of watching the activities and listening to the voices of the men engaged in the work of the port, he may note the changing aspects of the sea and study the effects of sunshine and shadow on islands and mountains seen through the masts of the ships. This treatment will lend delightful variety to a drive on the boulevard, and will add a special charm to the life of the city."

If it must be admitted that we are falling short of the ideal here sketched, it should also be admitted that

the ideal is difficult of attainment, if not at the present time impracticable. Putting it aside (without, however, forgetting it), let us confine our attention to the Embarcadero as it stands.

As a street of unusually ample width and continually changing allignment, bordered on the outer side of its curve by public structures of large size and generous scale, the Embarcadero offers at once peculiar problems of design and peculiar opportunities for effect. It is just this aspect of the street as a continuously diminishing perspective and continually changing allignment that seems to have escaped attention. Each pier front is what might be described as over-designed; by which we mean to indicate, not over-ornamented, but designed with excessive insistence upon its own entity, to the exclusion of a consideration of the ensemble of which it must form a part. It is a manifestation in less petty and trivial form of the kind of defect which is always flagrant on the concession street of an exposition. The resulting incoherence is augmented by the fact that all of these fronts are examples of "facade design." One who assumes the theoretical position of the elevational designer is confronted by a structure of Roman massiveness and symmetry: but a glance at the end, alas, reveals the sad fact that architecture is only skin deep. Yet the intervals between piers, as well as the continual turning of the street, mercilessly expose these unfinished ends and elaborately architectural fronts applied but unrelated to excessively utilitarian rears. In looking at building of this type we alternate between two states of mind. Sometimes we are inclined to resent the implication that we can grasp only one elevation at a time as an aspersion upon our intelligence; but in more generous moods we are somewhat conscious-stricken, wondering if we really have not played a bit unfairly by abandoning a strictly elevational point of view and spying around the corner, where we were obviously never supposed to look. Yet in these days self-determination is regarded as a principle of such efficacy and universal application that one wonders on what ground it can be denied to the humblest pier shed. By way of comparison we have reproduced Pier 36 (which needs no caption for identification) on page 253. This front would probably be regarded as undesigned, and is for that very reason illuminating and suggestive of possibilities along lines of naturalness and simplicity. But if candor compels the foregoing strictures, it is only fair to recognize some of the difficulties encountered. The sizes and positions of openings for railroad tracks, which are of necessity the main elements of the design, are determined inalterably and on considerations unaffected by appearance; and the relations of the lengths of fronts to the spaces between buildings are fixed not by architectural considerations, but by the practical requirements of width demanded of piers and intervening slips. The ragged and undeveloped condition of the city side of the Embarcadero also materially detracts from the appearance of the street as a whole.

MARSEILLE - BREAKWATER AND PROMENADE

Most successful of the buildings erected by the Harbor Board are some of the minor structures, such as launch and barge offices, the Harbor Ferry ticket office, etc. The Ferry Station of the Post Office really stands above in a class by itself. We feel that the cornice should have been of the same yellow terra-cotta as the quoins and trim, rather than of copper, which is so dark that it tends to fall in with its own shadow; and we regret that its relation with the foot of Mission Street could not be more definite. But when all is said, it remains distinctly creditable, and one of the best pieces of public architecture for which the State is responsible.

If the waterfront suffers on the land side from what we have termed over-design, on the water side, save in one or two instances, it suffers from entire absence of design. For the sides and ends of piers we would suggest no jot of irrelevant ornament or wasteful expenditure; but we can not escape the conclusion that the materials used might be handled with greater sensitiveness for effects inherent in them at no increase, or at the most trifling increase, in cost. Particularly is this unfinished aspect of the water side manifest at the Ferry Building. We have long had visions of how the French would have handled this problem;—stone pylons between slips carrying graceful arched hoods of decorative steel work covering the ends of the ferry boats, etc.; but we desist, realizing that we are falling into the class with Mr. Burnham. Yet it would be well to remember that this building, which is the real gateway to the city for all save those who enter by the Coast Line of the Southern Pacific Company, turns its back upon the visitor with the most ill-bred unconcern.

—I. F. M.

The India Basin - Islais Creek Harbor Project

(Following is the report of Chief Engineer Frank G. White on the development of the India Basin — Islais Creek section of the waterfront. The report was presented to the Board of State Harbor Commissioners under date of August 21, 1918, and its clarity and directness warrant its being reprinted in full. The drawings necessary for its understanding appear on page 234 and Plates 71 - 73.)

THE location of the tract and its relation to the developed waterfront and to existing railroad lines are shown on the accompanying map. It is bounded on the North by Islais Creek, on the East by San Francisco Bay, on the South by India Street and on the West by India Street, Arthur Avenue and Third Street. It is served directly by the Southern Pacific and Santa Fe Railways and within four blocks north of Islais Creek are connections between the lines of these companies, and the tracks of the Ocean Shore and Western Pacific Railways.

The plans proposed for the development of this section, contemplate the establishment of a new waterfront line 1500 feet in shore from the existing pierhead line. This was done in order to permit of the construction of long piers and to secure a location for the seawall approximately along a line where the bottom breaks off into deep water.

HAMBURG - AUGUSTE VICTORIA QUAY

The piers shown on the plans are 235 feet in width and 1000 feet in length with a depressed track along each side and either one or two story pier sheds. The slips between the piers are 350 feet in width and adjacent to the head of each slip is a 65-foot bulkhead wharf with a one story bulkhead shed 55 feet in width for receiving cargoes discharged at the bulkhead wharf. Back of each bulkhead shed is a multiple story warehouse 350 feet in length and 100 feet in width.

Along the Islais Creek Channel a coaling pier is provided and in shore from this, a wharf about 2000 feet in length for handling bulk cargoes of any kind. Ample storage space is reserved as indicated in the blocks designated "Coal storage" and "Lumber yard," and obviously these areas can be used for other bulk commodities as desired. Space can be secured here, for instance, for the handling of oriental vegetable oils.

Adjacent to the coaling pier, a car ferry slip is provided and the location of a second slip is indicated and is available in case it is ever required. Adjoining the ferry slip is a large classification and storage yard with team tracks and also a Belt Railroad enginehouse, shops, etc. A smaller yard is indicated further south for handling the railroad business to and from the piers in that vicinity.

The waterfront street is 100 feet in width, exclusive of the space occupied by the sidewalk and Belt Railroad tracks. An elevated waterfront sidewalk is provided leading from an incline or ramp over the railroad tracks and waterfront street, and then along the roofs of the bulkhead sheds.

The remainder of the tract has been laid out as an industrial district and in working out the sub-division, it was arranged so that every street extending to the waterfront ends directly in front of a pier. By using Arthur Avenue as a main thoroughfare and taking the shortest direct route to the pier which it is desired to reach any serious congestion on the waterfront street should be obivated. Each block in this industrial district has been laid out with an alley down the center in which are located three railroad tracks, one a thoroughfare track and the others sidings serving the adjacent industries. This leaves all of the streets clear for trucking and at the same time provides ample railroad facilities.

The complete development of the India Basin-Islais Creek section as proposed will provide eight piers each 235 feet in width and 1000 feet in length and one pier 120 feet in width and 700 feet in length, the total area being 1,964,000 square feet. The area on the bulkhead wharves between the piers amounts to 180,000 square feet, making the total area 2,144,000 square feet. The addition of the 500 feet extensions on the eight piers will increase this area to 3,084,000 square feet. The construction of two story pier sheds will, of course, largely increase the cargo handling area.

The length of the berthing space provided at the piers is 16,700 feet, at the adjacent bulkhead wharves 2800 feet and at the wharf along the Islais Creek channel 2900 feet, or a total of 32,400 feet, which will furnish berths for fifty large cargo ships. The extension of the piers to the pierhead line will add 6,000 feet of berthing space, sufficient to care for sixteen ships.

The plans contemplate the construction of eight warehouses having a total area on one floor of about 300,000 square feet. The storage capacity can be increased indefinitely by increasing the number of floors in any or all of the warehouses.

The spaces reserved for the handling of bulk cargoes have an area of 17 acres. They are served by railroad tracks and should be equipped with suitable cargo handling machinery. The railroad yards cover an area of 24.7 acres and exclusive of team, engine house and thoroughfare tracks they have a storage capacity of 1300 cars. The sections reserved for industrial development have an area exclusive of streets of 54.5 acres. They are divided into 31 blocks, all served by railroad tracks and all facing on streets leading directly to the waterfront.

As the first unit in the development of this section, I recommend that the following construction program be authorized:

1. Seawall and wharf along the south side of the Islais Creek channel to a point about 2400 feet east of Third Street.

2. Fill at least 400 feet in width back of the seawall.

3. Wharf shed 100 feet in width and two-story warehouse 200 feet in width on the wharf and filled ground parallel with the channel.

4. Extension of railroad tracks to serve the warehouse and wharf.

MAP OF SAN FRANCISCO BAY AND VICINITY

This wharf will furnish berthing space for four large cargo steamships and the wharf shed alone will easily accommodate at least 45,000 tons of cargo. When worked in conjunction with the warehouse, this wharf and wharf shed will permit of the rapid and economical handling of very large cargoes and will be especially valuable in the movement of through import and export freight which departs or arrives by rail.

The progressive development of the entire project should be carried out as occasion demands. The seawall along the waterfront street would be extended south, the submerged areas inside the wall would be filled and the piers, wharves, warehouses, etc. would be built as successive units to meet the increasing demand for harbor facilities.

SAN FRANCISCO HARBOR DEVELOPMENT

The present waterfront line of San Francisco in active use is approximately four miles in length. There are in existence 39 piers, about 16,000 feet of completed seawall, certain smaller bulkhead and other wharves, 27 seawall lots of land. The total berthing space, exclusive of the ends of piers, is about 14.1 miles, which can be expanded, as the population and commerce demand, to about 50 miles. The areas of covered and uncovered wharf are respectively 76.3 acres and 58.1 acres. There are six car ferry slips and twelve passenger ferry slips. The Belt Railroad is approximately five miles in length from end to end of the main line, and with switching facilities and dock tracks operates about 40 miles of track. By the progressive construction of a permanent seawall around the waterfront on the line fixed by law, important land areas between it and the previously existing city front have been reclaimed and become the property of the State and have been devoted to harbor uses. Many of these have been rented or leased to railroads, warehouses, etc., at remunerative figures, and some have been reserved for the use of the switching operations of the State Belt Railroad. It is estimated that if the present harbor front and facilities were owned and operated by private interests they would be capitalized at least for the sum of $250,000,000, and handsome returns could easily be made on that figure.

VIEW FROM AEROPLANE

THE WATER FRONT, SAN FRANCISCO

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UNITED STATES POST OFFICE, FERRY STATION
STATE ARCHITECT AND BOARD OF STATE HARBOR COMMISSIONERS, STATE DEPARTMENT OF ENGINEERING Architects
SAN FRANCISCO WATER FRONT

PIER 35

PIER 11

STATE ARCHITECT AND BOARD OF STATE HARBOR COMMISSIONERS, STATE DEPARTMENT OF ENGINEERING, Architects

SAN FRANCISCO WATER FRONT

PIERS 30 AND 32

PIER 24

BOARD OF STATE HARBOR COMMISSIONERS, STATE DEPARTMENT OF ENGINEERING, Architects

SAN FRANCISCO WATER FRONT

PIER 46

PIER 28
BOARD OF STATE HARBOR COMMISSIONERS, STATE DEPARTMENT OF ENGINEERING, Architects
SAN FRANCISCO WATER FRONT

PIER 44

PIER 26
BOARD OF STATE HARBOR COMMISSIONERS, STATE DEPARTMENT OF ENGINEERING, Architects
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CHIEF WHARFINGER'S OFFICE AND BUILDING OF CALIFORNIA NAVIGATION AND IMPROVEMENT COMPANY
STATE ARCHITECT
SAN FRANCISCO WATER FRONT

PIER 35

PIER 29
INTERIORS OF PIER SHEDS
BOARD OF STATE HARBOR COMMISSIONERS, STATE DEPARTMENT OF ENGINEERING, Architects
SAN FRANCISCO WATER FRONT

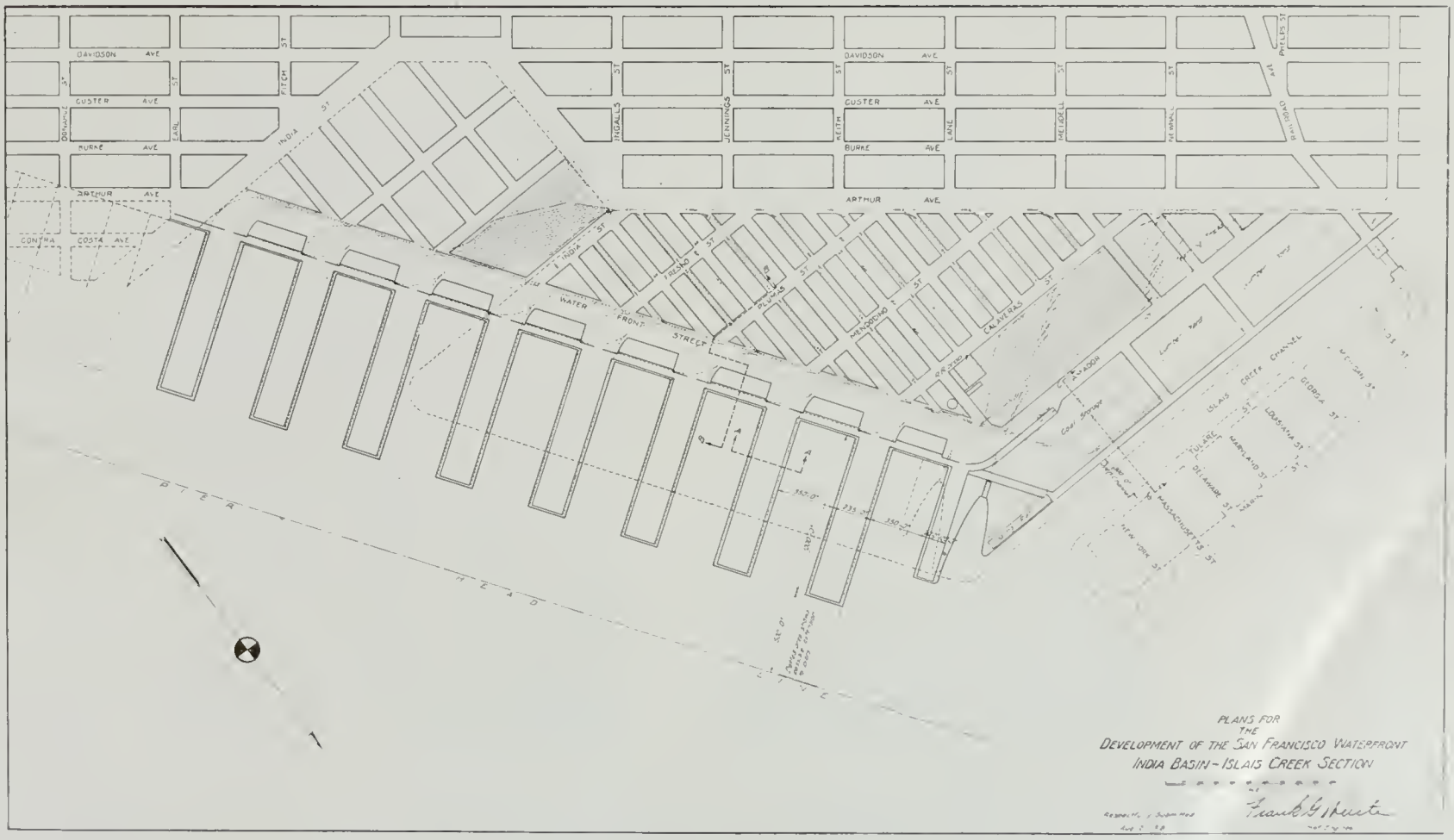
PIER 18

WATER SIDES OF PIER SHEDS—PIER 29

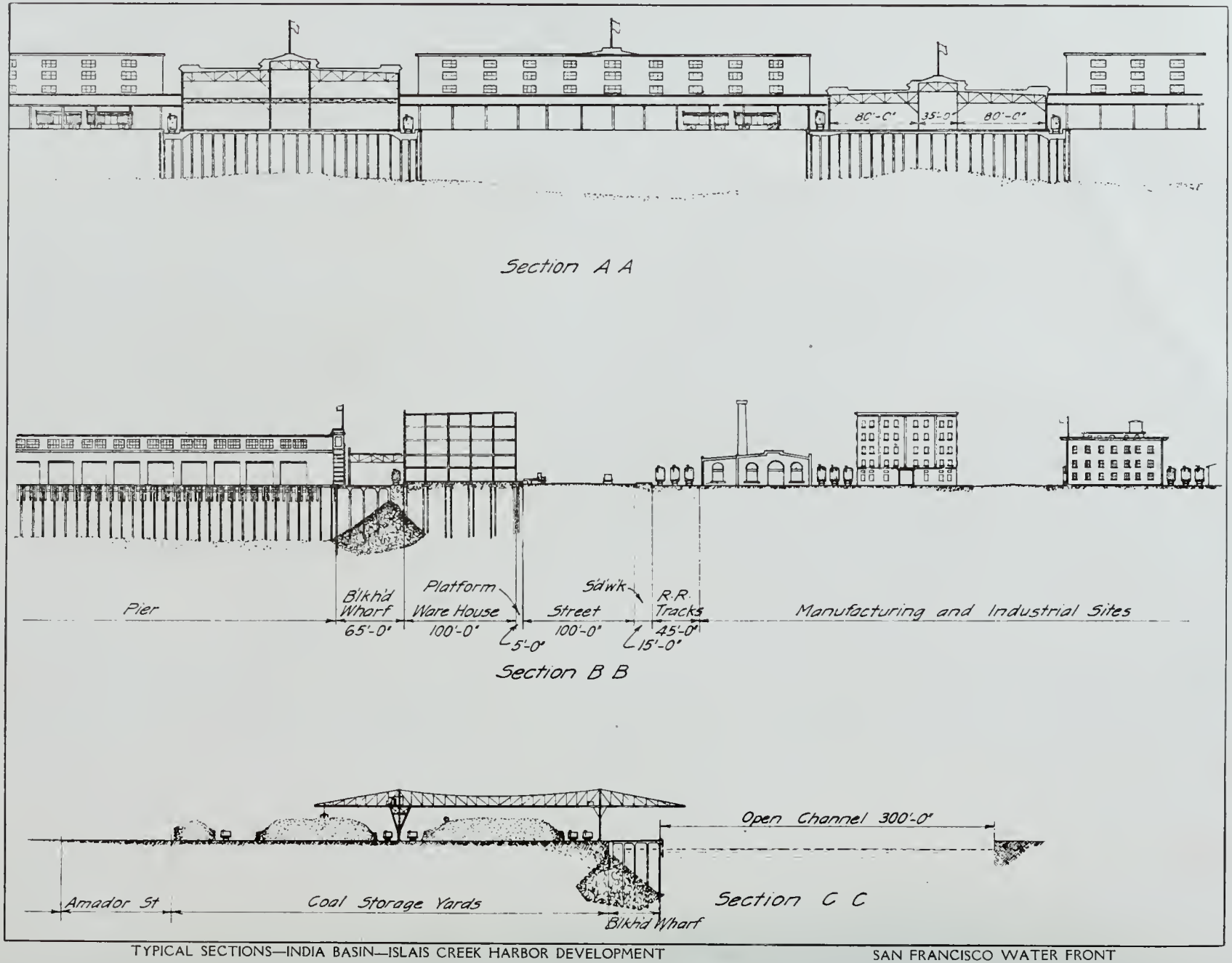
BOARD OF STATE HARBOR COMMISSIONERS, STATE DEPARTMENT OF ENGINEERING Architects

SAN FRANCISCO WATER FRONT

INDIA BASIN—ISLAIS CREEK HARBOR DEVELOPMENT
BOARD OF STATE HARBOR COMMISSIONERS, STATE DEPARTMENT OF ENGINEERING. Architects
SAN FRANCISCO WATER FRONT



PLAN OF INDIA BASIN—ISLAIS CREEK HARBOR DEVELOPMENT
BOARD OF STATE HARBOR COMMISSIONERS, STATE DEPARTMENT OF ENGINEERING Architects
SAN FRANCISCO WATER FRONT



TYPICAL SECTIONS—INDIA BASIN—ISLAIS CREEK HARBOR DEVELOPMENT SAN FRANCISCO WATER FRONT

BOARD OF STATE HARBOR COMMISSIONERS, STATE DEPARTMENT OF ENGINEERING

A LETTER

To the Editor of The Architect:

THE American Institute of Architects has for many years been the only organization which represents the Architectural Profession in a National sense. It was organized in 1857 and now has about 1500 members. There are over 15,000 Architects in the United States. My membership of twenty-four years offers fair opportunity to make observations of its diverse activities which cover everything from "soup to nuts," except a frank recognition and acknowledgment of its guest, the Public, and an invitation to it for a genuine architectural feast.

The Institute is like a great central Kitchen with Chapter Sculleries all over the country, in which the ethical pots and pans are kept polished; but nothing is ever cooked in them, at least nothing that is palatable to anyone except perhaps to the Menu Chef. Its nearest servants are obliged to work twelve months of each year in these Sculleries, and to pay tribute for their maintenance. They must also pay for the maintenance of the Chef's domicile — failing which they are fired by the all-powerful Chef who lives in an Octagonal Castle in the first city of this great commonwealth.

SHED NO. 2. EXTERIOR

NEWEST TYPE OF SHED. INTERIOR
TYPES OF HARBOR SHED, MONTREAL

One of the Institute's chief activities is reformatory work with recalcitrant renegades, who constitutionally fail to keep the ethical service polished in a manner satisfactory to the great Chef. Meanwhile, bad Architecture, like the swift-running brooklet, continues to flow on forever and forever, without a sign of hindrance from the preoccupied Chef. He is indeed an Autocrat who pans and cans, but never cooks anything for his guests that tastes palatable to them. His "pièce de résistance" is supposedly the best of modern Architecture, but he is so busy with reformatory work and reprinting antique Architectural Menus, expressive of culture, that no time is left for the great Architectural dish which he might serve. Real guests have never been welcomed to the board. They don't even know that there is a great National Architectural Chef, one who might prove himself a most worthy Host, were he to change his Reformatory into a real National Institution renowned for the quality of its Architectural foods, which guests could reasonably fancy, and learn to like with increasing appreciation, like a beautiful truth—alas! it is too bad that our greatest Architectural Chef is so busy with a great many other things.

It would seem strange indeed if the Institute should devote itself wholly to furthering the best interests of our Country, and if its watchword were — TO SERVE. It might be very dangerous to shake its seemingly dry bones to find out whether it really contains an Architectural Heart, which can be made of genuine service to the Public. We must remember that it has always been expending its efforts in trying to enforce compensation rules, revising unimportant by-laws, compelling Chapter Members to join the Institute and Institute Members to affiliate with Chapters, however distasteful to either or both; and any sudden shock might prove fatal.

Architecture is blessed with a great variety of useful technicalities which are a delight to every true disciple of this wonderful profession; but ethical technicalities imposed between Architect and Client harass and im-

pede their intimate relationship, without which the best results are endangered. A strained condition exists between Public and Profession which a National organization could have prevented. Best Architectural results can only be attained through perfect co-ordination between a decent client and a good architect; or more generally, through perfect co-ordination between the decent Public and the best branch of the Profession; the rest are unreliable, and don't count; therefore why try to regulate them with technicalities which invariably spill over into the laps of decency and cause offense? The Institute is constantly preparing new home-made ethics with which to judge the recalcitrant, but feeds them promiscuously. A good Architect produces good results primarily because he knows how; secondly, because he has a decent client who does his part. Without such co-ordination there can be no perfect result, and with it there need be no injection of purity technicalities. Ability to invent a proper design, coupled with a good and ever-growing understanding between such Architect and such Client insures success.

A National organization of Architects must similarly win the confidence of that great Public Element which counts in the progress of things, before it can be of any real service. That confidence can't be won through a barrier of technicalities nor by chastizing its unruly members for infraction of rules governing competition or something else which in the final analysis harasses the Public. Such rules are considered to be autocratic interferences with common rights and therefore meet with public resentment. Ethical laws have never yet produced good Architecture, which can only be insured by close affiliation between the good elements of Profession and Public. When the good public has been kindly told the logical reasons for, and the natural advantages obtainable through observing certain proprieties, then there will be slight need for excommunicating questionable practitioners.

UNITED STATES POST OFFICE, FERRY STATION
STATE ARCHITECT AND BOARD OF STATE HARBOR COMMISSIONERS, Architects

A word about Competitions—why oppose them? If any part of the good Public wants Competitions, let it be so. It pays two Physicians, three Musicians, four Politicians, five Attorneys, when engaged simultaneously; then why will it object to paying six or more Architects? Architects have not been made an exception of by the Public. It is the Architect himself who has created the exception. Why establish a lower charge for competitive service, when the service is more vexatious and perplexing than if rendered under direct appointment? Is an Architect's service valued at a discount because he competes? That service which is rendered in competition is really the most valuable part of the entire service to be rendered, if it is worth anything at all. As a matter of fact, the Architect's service is primarily engaged because of his inventive genius as a designer, to meet certain requirements of the Client, which must appear in the preliminary designs. For this most important service of all the Institute provides the smallest fraction of compensation, etc.

A National organization of Architects must necessarily first of all consist largely of a truly representative body of qualified and distinguished Architects who command proper recognition and respect.

Secondly, it must clearly define its purpose to foster and give its best support to every Architectural movement large or small.

Thirdly, to insure widest service through direct influence, it must become associated with every organization throughout the land which professes an interest in the Arts, Sciences, Literature, Commerce, Social Welfare, including those of Civic, State and National concern. Such association should be created through selection by the National organization of Architects, without exacting fees.

Fourthly, it must publish and give widest circulation to a Journal in which the modern world will observe some of the best examples of vital modern Architecture. The modern worthwhile man wants to know what's doing today and what is contemplated for to-morrow. Before anything is published in that Journal, its high standard must be attested. It must constantly explain Architectural virtues. It must also tell how to go about things to insure against the usual Architectural vices. It must help to win back the lost confidence of the one and the never-yet-gained confidence of the other for a profession whose good works are worshipped by civilized mankind as of man's highest achievement and greatest influence for good. Every Associate organization must be told how men can make their Home Town, City and Country better Architecturally, and what splendid advantages accrue therefrom.

Louis Christian Mullgardt.

San Francisco, November 1918.

A Program for Chapter Activity

THE following matter is contained in a circular letter from the President of the San Francisco Chapter A. I. A., addressed to the membership:

At the meeting of this Chapter held on November 21st I submitted for the consideration of the Chapter certain suggestions as to what I believed should constitute a part of the Chapter's activities for the ensuing year.

It was not intended that these suggestions should in any wise conflict with, but should supplement, the reconstruction program of the Institute, and notwithstanding that they refer to local problems, are nevertheless in the line of public service already indicated as a part of the new Institute program. Furthermore, I hope they will be the means of providing a serious work for the membership of this Chapter while we are awaiting the report of the Institute's Post-War Committee. These suggestions were presented verbally and by direction of the Chapter are here outlined.

First. The San Francisco Building Ordinances have been in need of revision for a long time, and while some effort was made toward a revision, there was no concerted action; and therefore, in order that we may exercise proper conservation and economy in the use of materials for new construction, I believe the time is opportune for gathering together the various interested organizations for the purpose of putting our Building Ordinances into proper shape. A communication has already been sent to the Chamber of Commerce and it is expected that shortly a preliminary committee will be formed to further this work.

PIER 36, SAN FRANCISCO WATER FRONT

Second. Much of the misunderstanding that occurs in the practice of architecture arises from loosely drawn clauses specifying obsolete or archaic methods of furnishing materials and workmanship. Space does not permit giving the many instances which occur wherein materials are specified not obtainable in this market or method of workmanship practically impossible. An architect working with a certain group of contractors familiar with his intentions, does not realize this until he faces a dispute with the owner or sub-contractor who reads only the printed page. Besides this question there are many of our specification clauses which could be simplified and standardized so that their intention would be clear beyond any doubt. For example, the various methods of specifying the mixture of cement with mortar for brick work. Some specifications refer to the quantity of cement in proportion to the quantity of brick, others to the quantity of cement proportioned to the lime, or mixed mortar. This matter of the proportioning in the use of materials applies to many other trades besides brick laying. I therefore suggest that either one or several committees of this Chapter be appointed to take up with the various sub-contractors' associations in this city, the question of adopting standard specifications for the usual classes of work required. By this means the intent of the specifications would be clearly understood by all concerned.

Third. It has been apparent for some time that the educational training of the architect and draftsman required an approach and viewpoint different from that hitherto held. The events of the last four years have demonstrated many things affecting architectural training which require immediate consideration and attention. So far as the State University is concerned no doubt the authorities are in a position to handle this problem with the greatest intelligence, but there is another phase of architectural training which hitherto has been seriously neglected. The high and vocational schools of this city have had a pretense of teaching architectural drafting and theory which was sadly deficient in the most elementary essentials. I believe the school authorities would welcome any suggestions that this Chapter would make that would increase the value of these courses. It will be necessary that a large number of draftsmen be trained for the work which is in anticipation, and their preliminary education is of the utmost importance. The Architectural Club should be assisted in regaining its position, and some means taken for a closer affiliation between the Chapter and the Club, particularly as to the educational work of the Club.

Fourth. It has been suggested also that the Chapter exert vigilance upon the publication of all matters affecting our profession, correct where necessary any mis-

(Continued on Page 257)

Official News of Pacific Coast Chapters, A. I. A.

The regular minutes of meetings of all Pacific Coast Chapters of the American Institute of Architects are published on this page each month.

San Francisco Chapter, 1881—President, Sylvain Schnaittacher, 333 Post Street, San Francisco, Cal.; Secretary, Morris M. Bruce, Flood Building, San Francisco, Cal. Chairman of Committee on Public Information, William B. Faville, Balboa Building, San Francisco. Chairman of Committee on Competition, William Mooser, Nevada Bank Building, San Francisco. Date of Meetings, third Thursday of every month; Annual, October.

Southern California Chapter, 1894—President, H. M. Patterson, 324 C. T. Johnson Building, Los Angeles, Cal. Secretary, H. F. Withey, 621 Exchange Building, Los Angeles, Cal. Chairman of Committee on Information, W. C. Pennell, Wright & Callender Building, Los Angeles. Date of Meetings, second Tuesday, except July and August, at Los Angeles.

Oregon Chapter, 1911—President, Joseph Jacobberger, Board of Trade Building, Portland, Ore. Secretary, Alfred H. Smith, Board of Trade Building, Portland, Ore. Chairman of Committee on Public Information, Ellis F. Lawrence, Chamber of Commerce Building, Portland, Ore. Date of Meetings, third Thursday of every month at Portland; Annual, October.

Washington State Chapter, 1894—President, Daniel R. Huntington, Seattle, First Vice-President, A. H. Albertson, Seattle, Second Vice-President, George Gove, Pullman. Third vice-President, Albert Held, Spokane. Secretary, Gerald C. Field, Seattle. Treasurer, Frank L. Baker, Seattle. Counsels: Charles H. Bebb, James H. Schack, James Stephen. Date of Meetings, first Wednesday, except July, August and September, at Seattle, except one in spring at Tacoma. Annual, November.

The American Institute of Architects—The Octagon, Washington, D. C. Officers for 1918: President, Thomas R. Kimball, Omaha, Neb.; First Vice-President, Charles A. Favrot, New Orleans, La.; Second Vice-President, George S. Mills, Toledo, Ohio; Secretary, William Stanley Baker, Boston, Mass.; Treasurer, D. Everett Waid, New York, N. Y.

Directors for Three Years—Edward W. Donn, Jr., Washington, D. C.; Robert D. Kohn, New York, N. Y.; Richard Schmidt, Chicago, Ill. Directors for Two Years—William B. Faville, San Francisco, Cal.; Burt L. Fenner, New York, N. Y.; Ellis F. Lawrence, Portland, Ore. Directors for One Year — Edwin H. Brown, Minneapolis, Minn.; Ben L. Lubschez, Kansas City, Mo.; Horace Wells Sellers, Philadelphia, Pa.

Minutes of San Francisco Chapter

NOVEMBER 21st, 1918.

The regular monthly meeting of the San Francisco Chapter of the American Institute of Architects was held on Thursday, November 21st, 1918, at the Palace Hotel. Previous to the business meeting, the Chapter attended a luncheon given by the Home Industry League in honor of "Architects' Day" at which Mr. George B. McDougall, State Architect was the principal speaker. At the conclusion of the Home Industry League's meeting, the Chapter meeting was called to order at 1:40 p. m. by the President, Mr. Sylvain Schnaittacher.

Members present were:

Hermann Barth, Morris M. Bruce, J. W. Dolliver, B. J. Joseph, G. A. Lansburgh, George B. McDougall, William Mooser, Charles P. Weeks, Perseo Righetti, George Rushforth, George H. Sanders, Arthus G. Scholz, Henry A. Schulze, Thomas Smith, Sylvain Schnaittacher.

MINUTES

The minutes of the meeting held on October 17th, 1918, were read and approved.

UNFINISHED BUSINESS

REVISED CONSTITUTION AND BY-LAWS:

Messrs. R. J. Joseph and Thomas Smith were appointed tellers to count the ballots on the new Constitution and By-Laws. 56 ballots were received and counted. 51 were affirmative and 5 negative. The tellers having made their report, the Chair declared the new Constitution and By-Laws adopted as of this date.

The amendment submitted with reference to the Competitions Committee was declared lost. 30 ballots were received—necessary to a choice, 50. The voting was 16 in favor and 14 against.

REPORTS OF STANDING COMMITTEES

The Chair announced the appointment of the following standing committees for the ensuing year:

SAN FRANCISCO SUB-COMMITTEE ON COMPETITIONS OF THE AMERICAN INSTITUTE OF ARCHITECTS:

Sylvain Schnaittacher, Chairman; George W. Kelham, William Mooser, Morris M. Bruce, Arthur Brown, Jr.

COMMITTEE ON RELATIONS WITH COAST CHAPTERS:

W. B. Faville, Chairman; Edgar A. Mathews, M. V. Politeo.

COMMITTEE ON BUILDING LAWS:

G. A. Applegarth, Chairman; G. A. Lansburgh, Albert Schroepfer.

COMMITTEE ON LEGISLATION:

J. J. Donovan, Chairman; Charles H. Cheney, Alfred H. Jacobs.

COMMITTEE ON PUBLIC INFORMATION:

Wm. Mooser, Chairman; J. Harry Blohme, Merritt J. Reid.

COMMITTEE ON EDUCATION:

Arthur Brown, Chairman; John Reid, Jr., Wm. C. Hays.

COMMITTEE ON ENTERTAINMENT:

Fred H. Meyer, Chairman; T. Paterson Ross, Clarence R. Ward, James R. Miller.

COMMITTEE ON LIBRARY OF ARCHITECTURAL CLUB:

Arthur Brown, Chairman; Wm. C. Hays.

SPECIAL COMMITTEES

COMMITTEE ON COLLECTION OF DELINQUENT DUES:

G. A. Lansburgh, Chairman; J. S. Fairweather, M. M. Bruce, C. A. Meusedorffer, J. W. Dolliver.

COMMITTEE ON BUILDING MATERIAL EXHIBIT:

J. W. Dolliver, Chairman; M. M. Bruce.

COMMITTEE TO AUDIT BOOKS OF SECRETARY-TREASURER:

J. S. Fairweather, B. J. Joseph.

On motion duly made, seconded and carried, the resignation of Mr. W. H. Crim, Jr., was accepted with regret.

GENERAL BUSINESS

COMMUNICATIONS:

The following communications were read: From the Industrial Accident Commission requesting the Chapter to appoint a member of the Committee on General Lighting and Safety Orders; From Senator James D. Phelan thanking the Chapter for its appreciation of the introduction of a bill providing that gifts or works of art to foreign nations be approved by the National Commission of Fine Arts; From Charles P. Weeks expressing the appreciation of the firm of Weeks & Day of the compliment paid them by the San Francisco Chapter in the resolution of October 17th in the matter of the Capitol Extension Buildings at Sacramento.

On motion duly made, seconded and carried, the President was directed to appoint a member of the Committee as requested by the Industrial Accident Commission.

The Chair announced with deep regret of the loss sustained by the Chapter in the demise of Mr. Thomas J. Welsh, a Charter and Honorary Member of the Chapter, who passed away on October 19th, 1918. On motion duly made, seconded and carried, the Chair was instructed to appoint a committee to draft suitable resolutions and forward the same to the family of the deceased.

On motion duly made, seconded and carried, the Secretary was directed to express to the Home Industry League the thanks of the Chapter for their courtesy in inviting the architects to their meeting and also for the privilege of holding the Chapter meeting following.

The Chair announced that it was desirable that the Chapter proceed with a programme for the reconstruction period and pending the receipt of the Institute's program, should inaugurate a programme of its own dealing with local conditions. This would be supplementary to the Institute's programme and would also constitute a useful service. The subjects outlined for consideration were: A revision of the San Francisco Building Laws standardizing specifications to meet local conditions, architectural education in the public schools, particularly the vocational and evening schools and public information regarding the profession of architecture.

On motion duly made, seconded and carried, the Chair was directed to embody the suggestions in a circular to be sent to all Chapter members.

ADJOURNMENT

There being no further business before the Chapter, the meeting adjourned at 3 p. m.

Subject to approval, , 1918.

MORRIS M. BRUCE, Secretary.

Minutes of Oregon Chapter

Minutes of Annual Meeting of the Oregon Chapter A. I. A., held at University Club, October 24th, 1918.

Members present: Messrs. Jacobberger, Post, Holford, Schacht, Lazarus, Naramore, Lawrence, Knighton, Webber, Whitehouse, Bennes and Smith.

On motion by Naramore, seconded by Lazarus, it was proposed that the Building Code be amended to permit the alteration of existing 4 story, class 6, constructed buildings, to be used for hotel purposes, the new construction to be in accordance with the present code. Motion carried.

On motion by Holford, seconded by Lawrence, it was proposed that the modification of Section 374 of the Building Code be referred to the Building Laws Committee. Motion carried.

On motion by Naramore, seconded by Lawrence, it was proposed that the suggested change in the Building Code, in the matter of light courts, be referred to the Building Laws Committee. Motion carried.

On motion of Lawrence, seconded by Bennes, it was proposed that the Chapter recommend one and two story buildings be ordinary, or 6th class construction—3 and 4 story, semi-fireproof, and 5 and 6 story, fireproof. Motion carried.

Motion by Holford, seconded by Whitehouse, it was proposed that the Building Laws Committee be requested to revise and recommend, as they see fit, all the matter of the Housing Code. Motion carried.

On motion by Naramore, seconded by Whitehouse, it was proposed that the Chapter's position on competitions be stated and forwarded to Mr. Whitaker of the Journal A. I. A. Motion carried.

On motion of Naramore, seconded by Schacht, it was proposed that all suggested State laws designed to govern architectural matters be held up for the duration of the war. Motion carried.

On motion by Naramore, seconded by Lawrence, it was proposed that application of Manson White for membership be filled, the check returned and a letter written by the President to Mr. White. Motion carried.

On motion by Whitehouse, seconded by Webber, it was proposed that the resignation tendered by Mr. Hoffman, be accepted, subject to the Institute regulations. Motion carried.

On motion by Naramore, seconded by Schacht, the report of the Chairman of the Education Committee (Mr. Whitehouse) was proposed and accepted, with thanks. Motion carried.

Mr. Whitehouse's report states that the School of Architecture has kept up its usual good standard even under the loss of several instructors, two, Messrs. Rosenberg and Fritsch, are in France, and Lieut. Dosch, at present, very ill with pneumonia. The report recommends the $25 prize be made an annual affair and be known as the "OREGON CHAPTER PRIZE" also that investigation of the Benson Polytechnic School's Architectural Course needs careful revision.

On motion by Holford, seconded by Post, it was proposed that the new Education Committee be instructed to carry out the recommendations of the 1917-1918 Committee, particularly in the matter of the making of the $25 prize for the University of Oregon an annual affair, and the revision of the Architectural Instruction at the Benson School. Motion carried.

On motion by Naramore, seconded by Bennes, it was proposed that the matter of the moving of the School of Architecture from Eugene to Portland be referred to the Education Committee. Motion carried.

On motion by Naramore, seconded by Bennes, it was proposed that the Treasurer's report be accepted and audited. Motion carried.

ELECTION OF OFFICERS:

On motion by Holford, seconded by Knighton, it was proposed that Mr. Schacht cast the unanimous ballot for the re-election of the officers of last year. Motion carried.

On motion by Lawrence, seconded by Bennes, it was proposed that in the matter of the designs submitted for the War Emergency Housing scheme, no drawings should be accepted unless essentially original, and that the drawings originally submitted be returned and rejudged. Motion carried.

There being no further business, meeting adjourned.

ALFRED H. SMITH, Secretary.

OFFICERS AND COMMITTES FOR ENSUING YEAR

President, Joseph Jacobberger; Vice-President, Folger Johnson; Secretary, Alfred H. Smith; Treasurer, Fred Webber.

Trustees, F. A. Naramore, Morris H. Whitehouse.

Executive Committee: M. H. Whitehouse, Jos. Jacobberger, F. F. A. Naramore, Folger Johnson, Alfred H. Smith, Fred Webber.

STANDING COMMITTEES

Municipal Plans—Affairs—W. G. Holford, Chairman; J. G. Wilson, Emil Schacht.

Membership—W. C Knighton, Chairman; Lee A. Thomas, Emil Schacht.

Building Laws—F. A. Naramore, Chairman; John V. Bennes, A. E. Doyle

Education—M. H. Whitehouse, Chairman; E. F. Lawrence, Jos. Jacobberger.

Competition—Jos. Jacobberger, Chairman; M. H. Whitehouse, Fred Webber.

Professional Practice—F. A. Naramore with National Body.

Legislative—Geo. M. Post, Chairman; Folger Johnson, E. F. Lawrence, Ion Lewis, D. L. Williams.

Quantity Survey—John G. Wilson, Chairman; Chester J. Hogue, F. S. Allyn.

Entertainment—F. S. Allyn, Chairman; Robert Tegen, E. F. Lawrence.

Better Business Bureau—Emil Schacht, Chairman; Chester J. Hogue, F. S. Allyn.

Publicity—E. F. Lawrence.

By-Laws—John V. Bennes, Chairman; A. H. Smith, W. C. Knighton.

SPECIAL COMMITTEES

Auditing—Geo. M. Post, Chairman; J. V. Bennes, F. S. Allyn.

Ethics and Competition for Public Buildings—M. H. Whitehouse, Chairman; W. G. Holford, D. L. Williams, Robert Tegen, Jos. Jacobberger.

War Emergency Housing—E. F. Lawrence, Chairman; F. A. Naramore, John V. Bennes, A. E. Doyle, A. H. Smith, M. H. Whitehouse.

A PROGRAM FOR CHAPTER ACTIVITY

(*Continued from Page 254*)

statements which appear in the public press concerning the profession, and further seek to create a proper understanding of the practice and duties of the architect.

While this program may seem unduly ambitious, it does not appear that there should be any difficulty in its execution, providing the membership of this Chapter and its committees are willing to devote a little time and labor to the effort. Any member of the Chapter interested or having experiences in any of the subjects herein mentioned should place his experience and suggestions at the disposal of the Chapter, regardless of whether he is a member of a particular committee or not.

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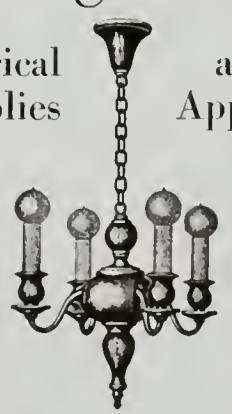
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ARCHITECTS' REFERENCE INDEX

Containing List of Manufacturers, Their Representatives and Serviceable Literature

ASBESTOS BUILDING LUMBER

Keasbey & Mattison Co., Ambler, Pa.

J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Illustrated and descriptive pamphlet, 7¾x10¾, 8 pp. Pamphlet, 4x8½, 8 pp. Price list, 3½x6¼. Literature of various sizes, samples, etc. "Service Sheets," working drawings, details of application, size 16½x21½.

ASBESTOS CORRUGATED SHEATHING

Keasbey & Mattison Co., Ambler, Pa.

J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Descriptive catalogue, 5¼x8¼, 24 pp. Catalogue of details and specifications for application of roofing and siding, size 8½x11, 40 pp. Lists of buildings covered. Price lists, 3½x6¼, 6 pp., and literature of various sizes, samples, etc. "Service Sheets," working drawings, details of application, size 16½x21½.

ASBESTOS SHINGLES

Keasbey & Mattison Co., Ambler, Pa.

J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Illustrated catalogue. Detail specifications, 8x10, 20 pp. Descriptive catalogue, various types of roof covering, 5¼x8¼. Various pamphlets, 3¾x6. Current price lists, 3½x6¼, 6 pp. Lists of buildings and literature, various sizes, samples, etc. "Service Sheets," working drawings. Detail of application, size 16½x21½.

BARS, REINFORCING

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BRICK, ENAMELED

Los Angeles Pressed Brick Co., Frost Bldg., Los Angeles, Cal.

United Materials Co., 5 Crossley Bldg., San Francisco, Cal.
Catalogue on "Enameled Brick for Facing," illustrating and listing names of prominent buildings finished with Enameled Brick. 5x7½, 48 pp.

BRICK, FIRE AND REFRACTORIES

Los Angeles Pressed Brick Co., Frost Bldg., Los Angeles, Cal.

United Materials Co., 5 Crossley Bldg., San Francisco, Cal.
Descriptive catalogue, 5x7, 54 pp.

Simons Brick Company, 125 West Third Street, Los Angeles, Cal.

BRICK, PRESSED

Los Angeles Pressed Brick Co., Frost Bldg., Los Angeles, Cal.

United Materials Co., 5 Crossley Bldg., San Francisco, Cal.
Moulded and Ornamental Pressed Brick. General catalogue. 5x7, 54 pp.

Simons Brick Company, 125 West Third Street, Los Angeles, Cal.

BUILDINGS

Asbesto-Crete Buildings Co., 1927 Market St., Philadelphia, Pa.

J. A. Drummond, 245 Mission St., San Francisco, Cal.
Fireproof, Portable and Permanent, Inexpensive Buildings for use in Schools, Garages, Camps, Hospitals, Barracks, Seashore Bungalows and Oil Service Stations.

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Santa Cruz Portland Cement Co., Crocker Bldg., San Francisco.

Standard Portland Cement Co., Crocker Bldg., San Francisco, Cal.
Bulletin 12 pp. Size 6x9; also furnish bulletins and specifications for various classes of work requiring Portland Cement.

CORK FLOOR

Van Fleet-Freear Co., 120 Jessie Street, San Francisco, Cal.
Illustrated catalogues, etc.

DECORATORS, INTERIOR

O'Hara & Livermore, 522 Sutter Street, San Francisco, Cal.

O'Hara & Livermore, 253 East Colorado Street, Pasadena, Cal.

ELECTRICAL EQUIPMENT

Keasbey & Mattison Co., Ambler, Pa.

J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Descriptive Pamphlet, 3½x6. 12 pp. Descriptive, 4x8½. 8 pp. "Service Sheets" working drawings. Detail of application. 16½x21½.

Walter Both, 1645 Mission Street, San Francisco.

ELEVATORS

Otis Elevator Co., Eleventh Avenue and 26th Street, New York.

Otis Elevator Co., 2300 Stockton Street, San Francisco, Cal. Offices in all principal Coast cities.
Otis Electric Traction Elevators. Bulletin. 6x9 in. 28 pp.

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Otis Elevator Co., Eleventh Avenue and 26th Street, New York.

Otis Elevator Co., 2300 Stockton Street, San Francisco, Cal. Offices in all principal Coast cities.
Otis Escalators. Bulletin. 6x9 in. 36 pp.

FACTORY EQUIPMENT

Manufacturing Equipment and Engineering Co., Framingham, Mass.

J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Bulletins and various literature. "Sanitary Washbowls," 6x9 in., 8 pp. "Metal Lockers," 6x9 in., 8 pp.; "Plumbing Fixtures," 6x8 in., 8 pp.; "Metal Stools and Chairs," 6x9 in., 8 pp.; "Metal Storage Racks," 6x9 in., 16 pp.; "Bubbling Fountains," 6x9 in., 4 pp.

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LANDSCAPE ENGINEERS

MacRorie-McLaren Co., 141 Powell Street, San Francisco, Cal.
Descriptive catalogue. 5x8¾. 52 pp.

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United Materials Co., 5 Crossley Bldg., San Francisco, Cal.
Illustrative of designs for mantel. 5x6 in. 54 pp.

MILL WORK

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Berry Bros., Wight and Leibe Streets, Detroit, Mich.

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San Francisco Office, A. L. Greene, Mgr., 269 Eighth Street.
Kyanize Enamel. Complete specifications. Booklet. 5x7 in. 20 pp.
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San Francisco Office, James Hambly & Sons, 268 Market Street, San Francisco, Cal.

Los Angeles Office, 447-449 E. Third Street, Los Angeles, Cal.
Bay State Brick and Cement Coating. Catalogue. 4x9. 24 pp. Color plates.
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Northern Manager, H. L. Frank, 80 Front Street, Portland, Ore.

T. A. Williams, Scott Building, Salt Lake City, Utah.
General catalogue "C." 6½x9 in. 176 pp. Indexed.
School Sanitation Book. 6x9. 32 pp.
Export Catalog "E." 6x9. 160 pp.
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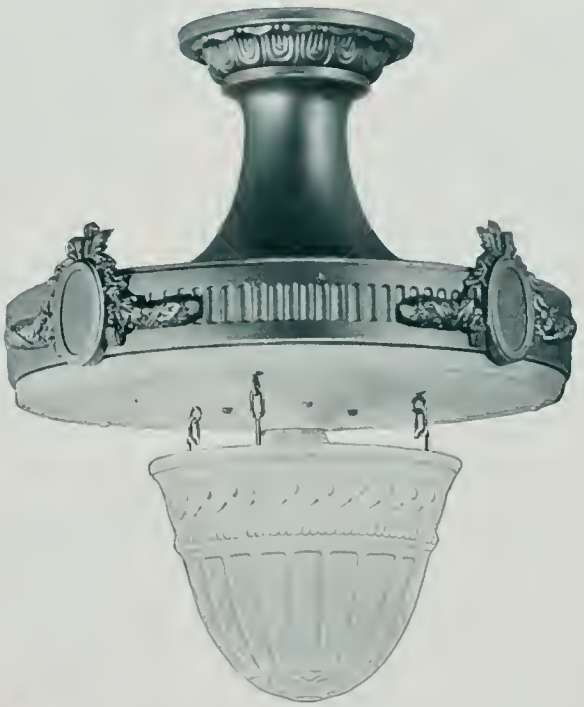

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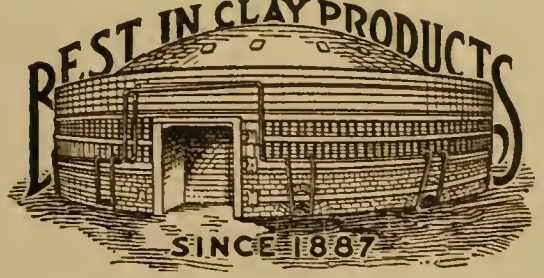

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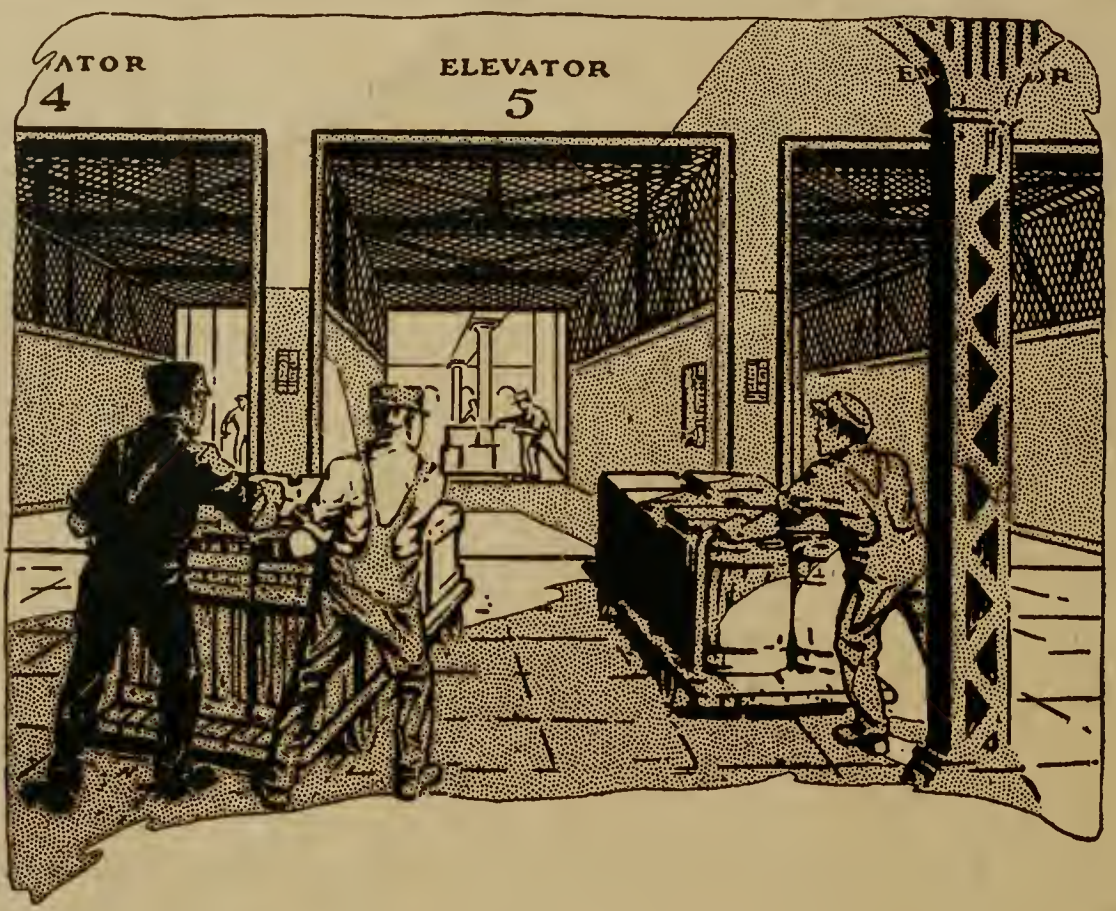

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VOLUME XVI · NUMBER 6
DECEMBER · 1918

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5. Keep all fixtures and parts clean. They are intended to promote sanitation, ventilation and health.

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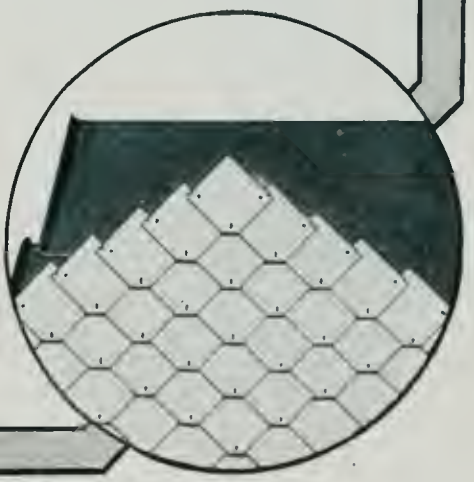

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Vol. XVI. No. 6

THE ARCHITECT

THE ARCHITECT PRESS
Publishers,

IRVING F. MORROW
EDITOR

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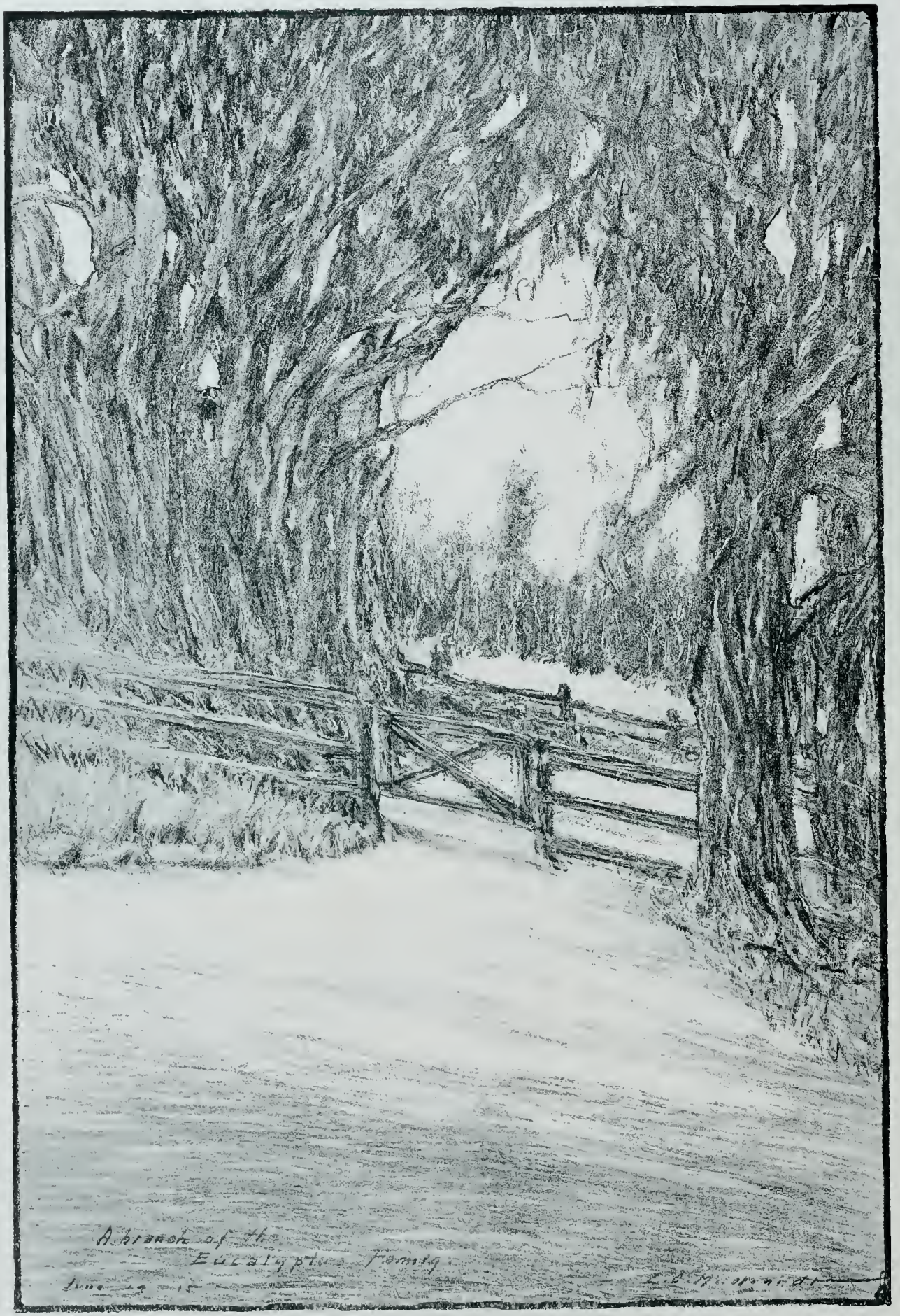
¶ Published in the interest of the architectural profession, on the first of each month, at 245 Mission Street, San Francisco. Entered as second class matter August 4, 1911. Subscription price in the United States and possessions, $5.00 a year; foreign and Canadian, $6.00 a year. Single copies, $1.00.

¶ Changes in, or copy for new advertisements, must reach the office of publication not later than the fifteenth of the month preceding issue. Advertising rates and any other information will gladly be given on application.

¶ The editor will be pleased to consider contributions of interest to the profession. When payment for same is desired, this fact should be stated.



A BRANCH OF THE EUCALYPTUS FAMILY
SKETCH BY LOUIS CHRISTIAN MULLGARDT

THE ARCHITECT

VOL. XVI SAN FRANCISCO, DECEMBER, 1918 NO. 6

The Monastery of the Visitation of the Blessed Virgin Mary - An Appreciation

By IRVING F. MORROW

THAT peace of God which passeth all understanding is a dispensation of the Spirit, and beyond the measure of human powers; yet if its attainment may be served through the less profound peace of this world, surely must Mount Saint Margaret Mary become a perfect retreat for monastic contemplation. Tranquility and content pervade an encircling scene of land and water which is uninterrupted to the blue horizon. Restraint and repose temper each form which builds into the pile crowning its light-and air-bathed summit. Nature and man in harmony have conspired to bestow upon those who dwell there the joy of untroubled calm.

Midway up the range of hills which forms the eastern rim of the broad country of San Francisco Bay, it tops its own ridge, somewhat detached from the main line. Westward the slope drops rapidly over open hillsides and through tree-clustered canyons upon the communities which spread along the bay shore. The undulating foothills directly below are pleasant with the scattered villas and gardens of upper Piedmont, and the turnings of sinuous roads. The level lands of Oakland and Berkeley beyond seem spread with a dim and faded tapestry, an interminable field of houses lined with the delicate tracing of many streets. Outstreached pier arms breaking the long shore curves hint of the distractions of traffic and industry. Yet here there comes no sound save the call of the quail or the meadow-lark, and even the smoke which arises from factory chimneys dissolves and drifts into the imperceptible haze dimming the far southern hills. This same landlocked sheet of water was the inspiration of Edward Rowland Sill's verses.

> Before me, on the wide, warm bay
> A million azure ripples run.

On the further shore the long peninsula of the city of San Francisco and its more mountainous counterpart to the north all but touch save for the narrow passage which leads between the hills to the shimmering ocean. Distance is possessed of magic powers which integrate the most disparate elements into a symbol of perfect peace. Morning reveals this scene joyful with the radiance of dew. It is caressed by breezes from the blue bay throughout the long golden afternoon. But perhaps it is loveliest at the cool end of day, when for a few breathless moments faint afterglows transfigure the gray line of hills, and the slow passing of evening into night evokes the stillness of innumerable lights which twinkle around the harbor shores and along the avenues leading from point to point. Across and far up and down the bay fainter lights reveal communities unsuspected in the daytime haze. A vast map is traced upon the night with stars.

If the view behind, to the east, is more restricted, it is compensated by greater intimacy and seclusion. A gentle valley below, and beyond, the main ridge patterned with satin fields and velvet growth rising up to a long, slow, tree-clad line against the sky, make a scene as tranquil and comforting as the hills can offer.

To design a building which looks out over such a prospect, a building which takes its place as a conspicuous element of such a landscape, is a task to inspire an architect to high achievements. It is also a problem which involves a special obligation. Like so many of the opportunities of life, it carries a responsibility as heavy as its possibilities are rich. This Californian country is not only possessed of rare and subtile beauties, it is unique. Those who alter its face are in duty bound to respect its inherent qualities, to work with the fullest sympathy and the completest understanding. The gradual reaching out of the communities' activities into the surrounding country is to be welcomed as the index of a fuller and richer life. Implying the recognition and the humanization of nature, it is thus the fulfillment of man's specific role, which is to assert in all his contacts his peculiar humanity, or the qualities and impulses which differentiate him as a consciously aspiring force from the blind workings of the rest of nature. Yet to be fruitful the trend of man's efforts must be toward the intelligent development rather than in the line of an unintelligent neglect or thwarting of the underlying principles of nature. It is because the races which have made the significant contributions to our civilization have consciously or intuitively realized this that the old world is replete with shrines which are objects of the never-failing devotion of subsequent generations. Our own civilization, from the point of view of time, may be said to be only beginning. It begins, however, under unprecedented auspices—the combination of a new country with all that is implied thereby in the way of pioneer effort and the creation of a background, together with a substructure or foundation of civilization ready made and highly developed. Therefore, when a hand is laid upon our waiting landscape, how pregnant an opportunity is presented to cherish and to enhance its precious character; yet how

facile and how irredeemable is its sacrifice to indifference or incompetence!

No less noteworthy than the natural beauty of Mount Saint Margaret Mary is the felicity with which its crowning structure enters into its spirit. Architectural composition involves a reciprocal interplay of great delicacy between building and landscape. Every site contains within itself implications which it is the duty of the building to recognize and carry out. The architecture can be neither a submission to, nor a domination over nature. The impulses which direct the building's form must derive from the site; yet in developing, the building must correct each defect of the site, make good its every inadequacy, and carry to completion all the possibilities latent therein. This is for the architect a fundamental obligation, particularly in the case of a building occupying an open and isolated position. An analogy which is suggestive, even if not rigorously parallel, is presented by the problem of thematic development in music. To those minds gifted with true musical insight a theme presents itself not as a static formula, finished once for all; it is replete with suggestions of numerous and varied possibilities. The presentation of these more remote implications of the themes used is an essential element in musical composition of the highest order. These developments and variations are all suggested by and derived from the fundamental theme; yet in their turn they reflect back upon that theme and illuminate it with a light which reveals latent possibilities therein and charges it with unsuspected significance. So must an architectural monument be at one and the same time the derivative and the complement of its site. Neither is complete, fully explicable, nor fully realized without the other. This, of course, is considering the problem in its largest aspect; but if this is neglected, the most conscientious attention to the design of the building itself can lead to no more than a consummate incongruity. Only this broadest and most general problem is really worthy of the name of "composition," and in proportion to the degree of its achievement is that harmony attained which is called inevitability.

RESIDENCE OF GEORGE H. BIXBY, RANCHO "LOS CERRITOS"
VIEW OF GARDEN TERRACE
COXHEAD & COXHEAD, Architects

At the present time, with architect's preliminary drawings as the sole available testimony, one who is personally unacquainted with the site of Mount Saint Margaret Mary may be pardoned for skepticism as to the attainment of this sense of inevitability. Architectural drawings are notoriously open to suspicion on the score of veracity; and architects, being themselves privy to the tricks of the trade, are prone to be unduly sensitive to possible deception in the drawings of others. It is regrettable that this should be so. The clever draftsman to whom architecture is but a medium for the display of manual dexterity, the feeble designer who prepares perspectives in the hope of deluding himself as well as others in regard to the nature of his building and its surroundings, are fit subjects for contempt. Were the inconsequence of their own productions the only question at issue they might be ignored; but they serve to bring into disrepute with both profession and public the work of draftsmen of sincerity and genuine ability. For this reason it becomes important to emphasize the essential fidelity of these drawings. When it is realized that the lifting aloft of this crescent ridgetop, the breadth, simplicity, and mellow content of the landscape, are not "entourage" improvised for the sake of a pleasant picture, but the very soil out of which the structure has sprung, no argument will be necessary to enforce its harmony with is destination. In these drawings a masterly talent for draftsmanship is forced into the service of an idea—the expression of the composition in its entirety. They resemble more a painter's rendition of a landscape composition of which the finished building happens to be an element than an architect's preliminary presentation of something which possesses reality only in his own mind. Nor are the perspective drawings alone in rendering this

interpretative service. To those conversant with the language of lines the plans are replete with suggestion and explanation. They imply an ensemble which has developed through the sympathetic accretions of years, rather than a project still in prospect. They possess, as one might say, the quality or attribute of having been lived.

The composition is lucid, its intent unmistakable. A narrow line of arcaded monastery follows the natural crescent of the hill's contours; at the end where the spur climbs toward the higher line of the main ridge it surges up into a massive towered church; at the end where the hill falls away it is secured by a small oratory chapel. Adequately simple in principle to meet the exactions of unity, in effect it is so disposed and articulated as to offer unlimited incidental variety. Subtilest of all expedients safeguarding against monotony is a sensitive handling of planes. Around the monastery building arch succeeds arch in what, on a count alone, might seem an interminable procession. Actually different lengths of this arcade are turned at a variety of angles. This means in the first place that regardless of the sun's position each section receives a different lighting, which is no small asset in itself. But more than that, the foreshortening of perspective is continually introducing variation into the apparent forms of identical elements. Unity and variety are thus served at one stroke. But effects of line as well as of plane are incidental to this irregularity of plan. Every turn means that the convergence of perspective is attributing varied angles to lines actually horizontal. For example, what appears in plan as a convex angle of the infirmary wing behind the church becomes in effect a shoulder which braces the huge weight of the church and lets it down easily and cautiously into the long low structure. A more obvious but no less effective method of diversifying the simple scheme is the introduction into it of incidental features. All of the principal angles of the composition flow easily one into the other, save at the exterior right angle of the extreme north corner. At this point the out-sisters' wing, leaving the main structure and dropping down hill from the level contour, gives firmness and decision to an abrupt turning. But most of these incidental elements are of more modest dimensions. Stair towers add their share of accidental touches; not only do their lines and planes relieve uniformity, but their openings will refuse to allign with established window heights. Most delightful of all variants from a strict regularity are the several small oratories distributed about the building. Their charm is not confined to the exterior; within, amid the austerity of long corridors and rows of cells, they are set like jewels, simple, but of great price. Of all of these minor features it will be noted that whatever their value as points of diversion, they invariably maintain their positions as incidents, and avoid confusing the larger aspects of the composition. Last though in no sense least among the means of attaining variety are the gardens which slope gently away from the building on all sides. The accidents of foliage falling into a composition are among its chief assets of picturesquenss. A discreet balance is maintained between intimacy and formality of planting.

RESIDENCE OF GEORGE H. BIXBY, RANCHO "LOS CERRITOS"
NEAR LONG BEACH SOUTHERN CALIFORNIA
COXHEAD & COXHEAD Architects, San Francisco

RESIDENCE OF GEORGE H. BIXBY, RANCHO "LOS CERRITOS"
VIEW OF GARDEN TERRACE
COXHEAD & COXHEAD, Architects

As the dominating element of the composition the church demands a moment of attention. On a casual glance its plan might seem to indicate the traditional

cruciform church. Examination shows that while the church is indeed in a cruciform structure, it is not properly speaking a cruciform church; it is a nave paralleled through a part of its length by aisles. The transepts, in fact, are not church transepts at all, but two-storied accessory structures, visible on the interior, as far as they are so visible, only through screens or grilles. The same is largely true of the apse. The result in exterior expression is unusual. Likewise of interest is the manner in which the corners of the massive central tower, instead of disappearing in the masonry of the crossing points, spread to the ground through four square corner pavillions which occupy the angles between the nave and the transept structures.

Possibly the most elusive element in architecture is scale, having to do with the apparent size of a composition, with the relative sizes of its elements, and with the relations of size which the whole as well as each of its parts bears to all with which it may naturally come into contact. Coarseness and crudity are to be avoided at close range, flatness and weakness from afar. The smaller the range of distances from which a building can be viewed, the less acutely is this problem felt, for a relation once established is not subject to alteration; the more free the use of ornament, the less difficult is its management, for detail may be scaled to give delicacy close at hand and to disappear in mere texture from a distance. A building of the nature and position of this one is calculated to aggravate the difficulties attendant upon the handling of scale. It is to be an abode cherished of all who dwell within its confines, yet it is to stand forth as an an authoritative symbol of the things of the spirit to those who from below lift up their eyes unto the hills; and, by the terms of its being, simplicity, even austerity, seem to be required. There is possible no evasion of the problem, which must be directly met by the manipulation of sizes, reliefs, positions, etc., of elements almost unadorned. The great danger here was that the arcades might become unsympathetic to the passer-by, or insignificant in the general view; that the church and tower might become brutal as seen from the gardens, or flimsy as seen from beyond the monastery confines. How successful a course has actually been maintained between such extremes can be appreciated only by close study of the drawings themselves.

DOORWAY FOR RESIDENCE OF MRS. F. L. NELSON, OAKLAND
CHESTER H. MILLER, Architect

Those who have contemplated old-world places and things of renown and reflected upon the reasons for the recognition which is theirs must have been impressed that our country of the the new world is deficient only in so far as it fails to testify to long and intimate human association. After all, the most interesting thing in the world to man is man. Even when the seclusion and solitude of nature are sought it is but to gain a moment's pause for the revision of human values. The scenes which acquire particular places in our affections are those which successive generations of men have enriched with their intelligence and love. In our own land of California almost the only objects to inspire veneration of a worthy past are the naive and earnest Mission buildings bequeathed by the Franciscan fathers of a century and more ago. These rudely but sincerely constructed piles stood as places of refuge at day's stages along the desolate and unpeopled highway. Though their function may have lapsed it can not be said that their usefulness is past. In the days of transition from the simple times of the padres to a richer and more varied civilization it might have seemed to them that all the ideals for which they had striven and suffered were lost. Yet now on Mount Saint Margaret Mary we witness, as it were, the continuation of their tradition of sweetness and light. But how different is the manifestation of the altered conditions of a new age! Today, avoiding the thronged highway, a solitude is sought high upon the hills overlooking widespreading communities. The rude materials and technique of primitive days cede to the inexhaustible resources of science and art. The sad sincerity of an humble art, building better than it knew, is succeeded by the poise and assurance which attend understanding and the enthusiasm born of a consciousness of working in the full flood of the world's activity. The padres of old, as we today, looked out upon that line of hills, bluer than water or sky, which follows down the east bay shore. Could they behold it now, what wonderment must be theirs to discern the endless mantle of industry and habitation spread along its base; yet what satisfaction, what thanksgiving withal, to recognize poised high above material considerations the soaring church and chapel terminating the long line of the Monastery of the Visitation of the Blessed Virgin Mary!

The Monastery of the Visitation of The Blessed Virgin Mary—A Description

By LOUIS CHRISTIAN MULLGARDT

MOUNT Saint Margaret Mary lies in the hills behind Piedmont, on the east shore of San Francisco Bay. The principal roadways thither and to the Monastery of the Visitation of the Blessed Virgin Mary crowning its summit lead from the lowlands of Oakland and Berkeley, merging into Hampton Road, which ribbons its way over rising ground to an elevation of seven hundred feet above the Bay of San Francisco, where it half encircles the Mount itself. Monastery Lane branches off Hampton Road into the public court and parking space adjoining the Chapel, as shown on the plan of landscape. This public court leads to the North Entrance of the Chapel and to the walled Chapel Gardens on the westerly promontory which forms the immediate foreground of the west facade of the Chapel. It also leads to the Priests' Study and Sacristy, and to the outer court yard, where visitors to the Monastery will be welcomed, and where essentials will be received by the Out-Sisters.

The enclosure walls surrounding the Monastery trace the irregular perimeter of the acreage. The walls' picturesque irregularity adheres to a single gradient contour; they are on a horizontal plane, but appear to rise and fall in perfect accordance with the varying slopes and irregular sides of the Mount. Tangential walls separate the estate into Courts, Yards, Gardens, Orchard and Cemetery. They are variously curved to the natural gradients of the hillside and concordant with the perimeter walls.

The architectural composition, when viewed from the southwest toward its principal exterior, is crescentiform. It follows the ridge of Mount Saint Margaret Mary and constitutes a corona which varies in magnitude with every change in angle of observation. All facades are visible from distant surroundings. Privacy, so essential to monastic life, is wholly preserved by singular isolation and natural environment. The setting is naturally exclusive, and free from apparent intent to make it so. The buildings are located twenty feet above the enclosure walls, which obscure the edifice from view at close range.

Glorious views of great magnitude are obtainable in every direction from within the estate, consisting of mountain ranges of gentlest curves clothed with velvety fields of summer brown or winter green. Great swerving patches of dense pine and eucalyptus forests extend beyond the horizon. Within this landscape the opalescent Bay of San Francisco lies, its channel to the Pacific

BARN FOR PROF. SENGER, BERKELEY, CAL.
MAYBECK & WHITE, Architects

through the Golden Gate being distinctly visible. The densely populated lowlands of Oakland and Berkeley follow the irregular eastern shore line of the bay, like a soft purplish stretch of mosaic. Westward across the bay the city of San Francisco is faintly visible. At night myriad lights glitter radiantly, like reflected starlit skies. Every aspect abounds with inspiration. The fog frequently enshrouds the entire landscape, and the top of Mount Saint Margaret Mary is seemingly transported into the skies. The Mount is blessed with an atmosphere of invariable tranquility. Everything which the senses can detect exhales the gentle spirit of peace. Its aerial height creates a point of vantage from which some of the greatest natural phenomea are visible.

The plan of landscape shows where the Public Roadway approach enters the Public Court and Parking Space, which slopes gently to the north. It will be suitably paved for use of conveyances and pedestrians and bordered with evergreen growth and slender trees. Creeping vines will cover its surrounding walls.

The Outside Court Yard provides indirect communication with the Monastery for visitors and for delivery of essentials. A large store room is located on the ground floor of the Out-Sisters' Building, for supplies in quantity.

The Poultry Yard to the east of the Out-Sisters Building will also serve as a Drying Yard for the Laundry on the ground floor of this wing.

The Vegetable and Fruit Gardens will be screened from view by a Box-Hedge surrounding the Terrace. The Hedged Terrace is accessible from the principal rooms on the first floor by means of broad steps.

The Cemetery occupies the entire southeast end of the property beyond the termination of the main wing of the Monastery. A large Crucifix constitutes the focal point of this promontory.

The Private Gardens are to the southwest of the Monastery, separated from the Chapel Gardens, which occupy the entire westerly promontory.

All Gardens slope gently away from the building and are thereby easily drained. The paths tend to follow the contour lines, affording easy traverse. They terminate at focal points of interest against enclosure walls and buildings. The central oval Plaza, contains a Monumental Fountain and Statue of Saint Francis de Sales; also an exedra half encircling it.

The Little Garden north of the Monastery is intended largely for the use of convalescents, whose hospital quarters are in the adjoining Infirmary. This Garden is made accessible from the north wing by garden steps and turret staircase. It is well protected against prevailing west winds by Chapel and Monastery walls, and will receive sunlight and shadow during the full length of day.

The east side of the Out-sisters' Building is devoted largely to visitors quarters; the west side to a large larder which is under control of the Out-Sisters, whose quarters are on the second floor of this wing. The Monastery is accessible only through the entrance of the Out-Sisters department.

The Culinary Department is adjacent to the Larder, separated by the North Corridor. The Refectory, Assembly Room, Library and all of the Official Departments and Work Rooms are arranged in their relative order through the length of the first floor of the Monastery. All departments derive direct daylight and ventilation from two sides, facing northeast and southwest, which insures a maximum of sunlight and fresh air.

The Arcaded Cloister flanks the full length of the southwesterly side of the Monastery and connects all departments. It terminates against the apse of the Chapel at the extreme left, and against the Oratory within the Cemetery at the extreme right. The arches of the cloister correspond in number to the beads of the Rosary. The Chapel is similarly emblematic, as a Crucifix pendant thereto.

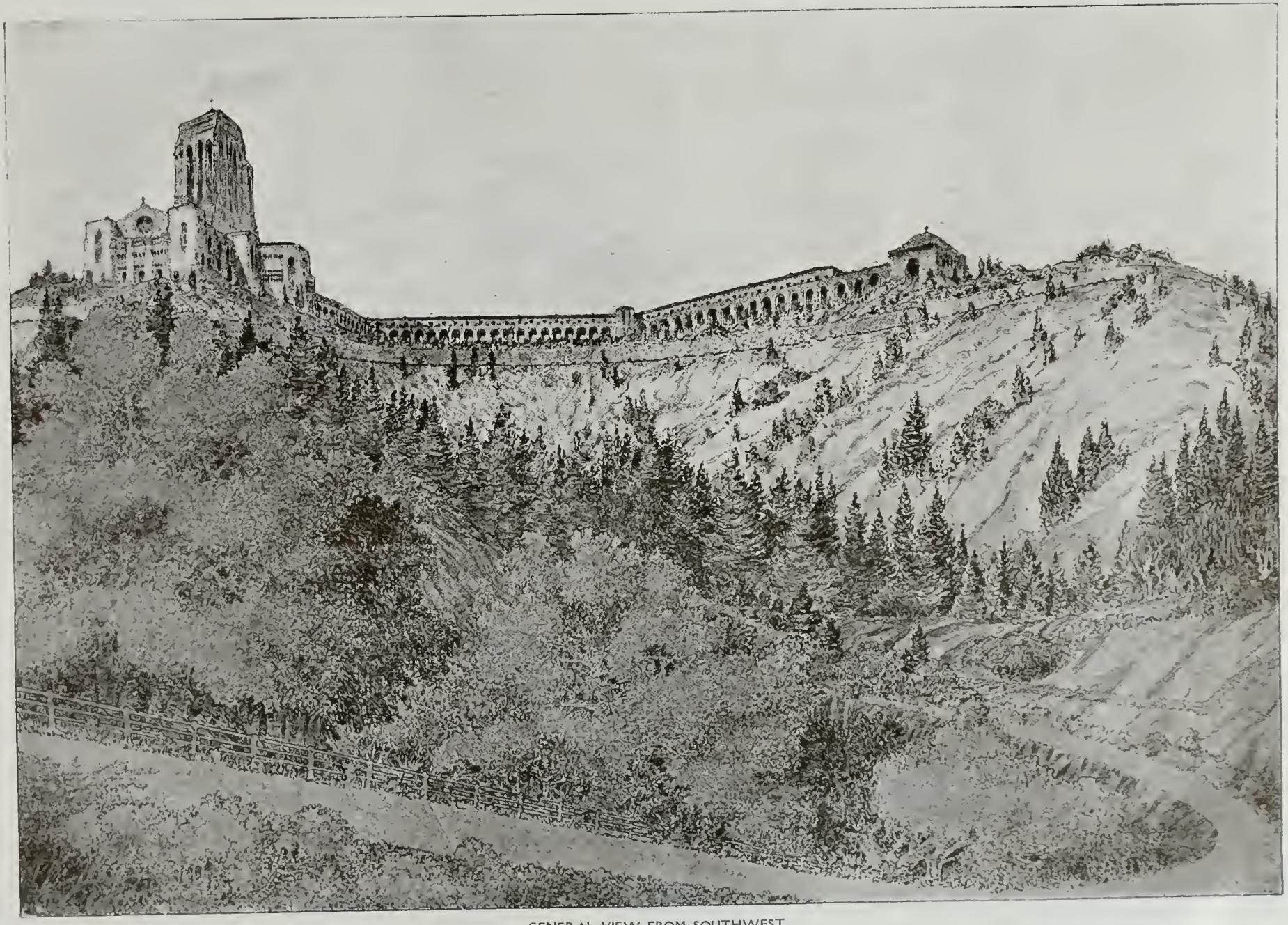
The second floor of the Monastery is made accessible from the Cloisters by four main staircases situated at convenient points. The second floor is devoted largely to individual Cells, to which a continuous Veranda is made accessible.

The Lady Chapel or Tribune is situated in the outer apse of the Chapel, convenient to convalescents from the Infirmary. The Chapel Service is heard in the Tribune through a grating behind the Altar.

The west porch of the Chapel is accessible to the public through a side entrance from the Parking Space, and from the main entrance in the Chapel Gardens. The Priests' Room and Little Chapel are located to the left and right of the Nave, adjoining the north and south Transepts. The north transept contains the Priests' Sacristy and Confessional. A private corridor leads from the Priests' Study to the Sanctuary. The organist and outside choir reach the Organ Loft by a private staircase. The Nuns' Choir and Ante-Choir Rooms are in the south Transept. The Chapter Room is above the Choir Room.

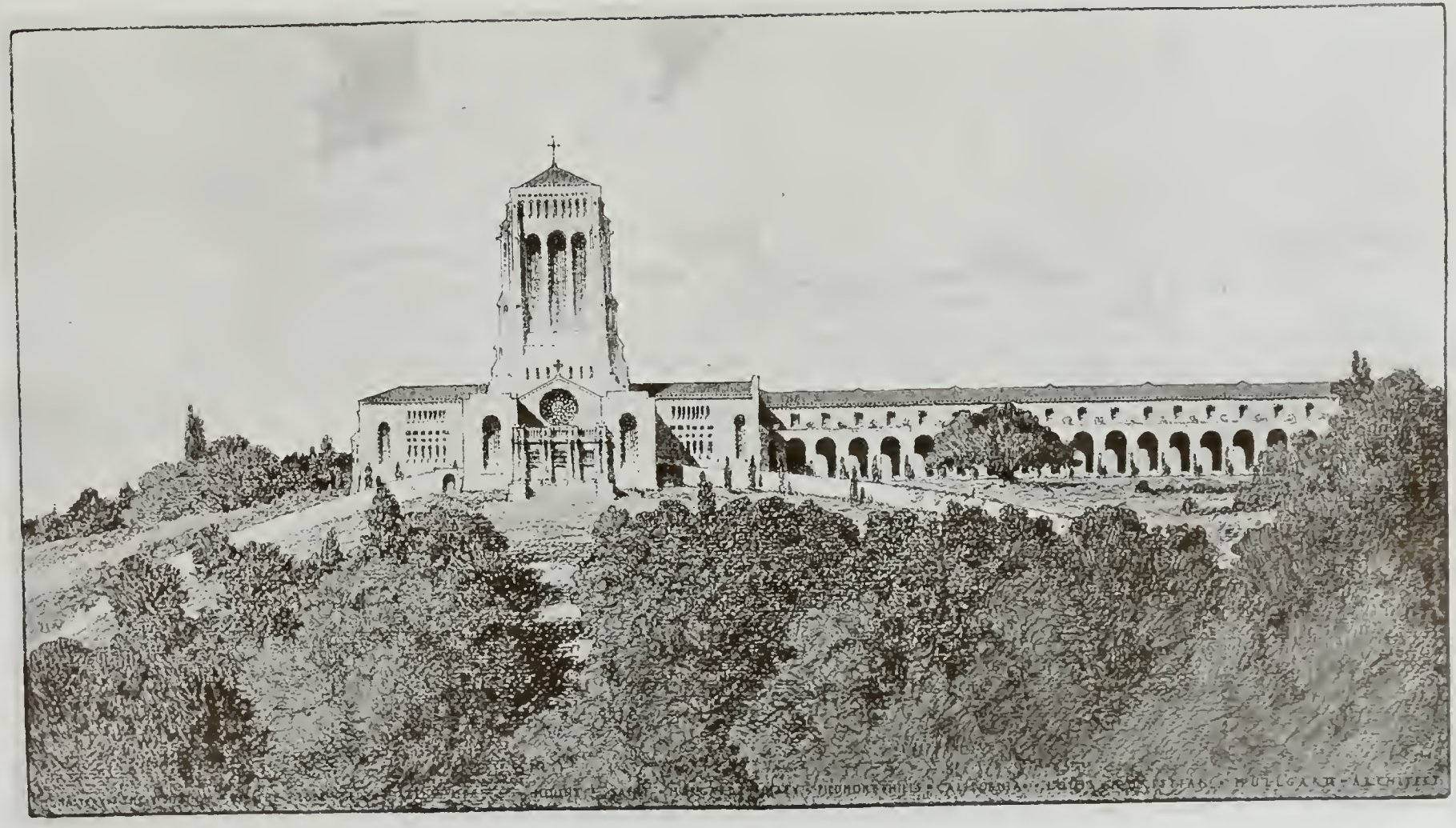
An electric elevator and a staircase in the south and north corridors of the Outer Apse extend from the first and second floors to a large chamber with high ceiling within the Chapel Tower. This chamber is made accessible to the Nuns only. It affords an exceptional view of the entire surroundings from an elevation of nearly one hundred feet above the crest of Mount Saint Margaret Mary.

The construction of the edifice, relative to solidity, endurance and surety against fire, will be as consistently perfect as modern science can devise. The walls and floors will be monolithic. Cellular block tiles will be extensively used for linings and partitions. The interior surfaces will be largely plastic. The floors and bases will be non-perishable and water proof — tile, mosaic, marble and plastic materials. The interior cabinet work will be of select hardwood. The exterior walls will have a textural surface, and harmonize in color and shade with certain tonal qualities of the Mount. The roofs will be of Spanish Tile in variegated neutral red tones. The windows will have metal grills of appropriate design. The interior of the Chapel will be enriched with Cathedral glass windows and suitable mural decorations painted by Masters. The ceiling will be coffered. Extensive planting of Gardens, with flowers, shrubs, trees and creeping vines, including the placing of appropriate monuments and garden furniture, will provide an imposing setting for the ensemble, and will be one of its chief glories.

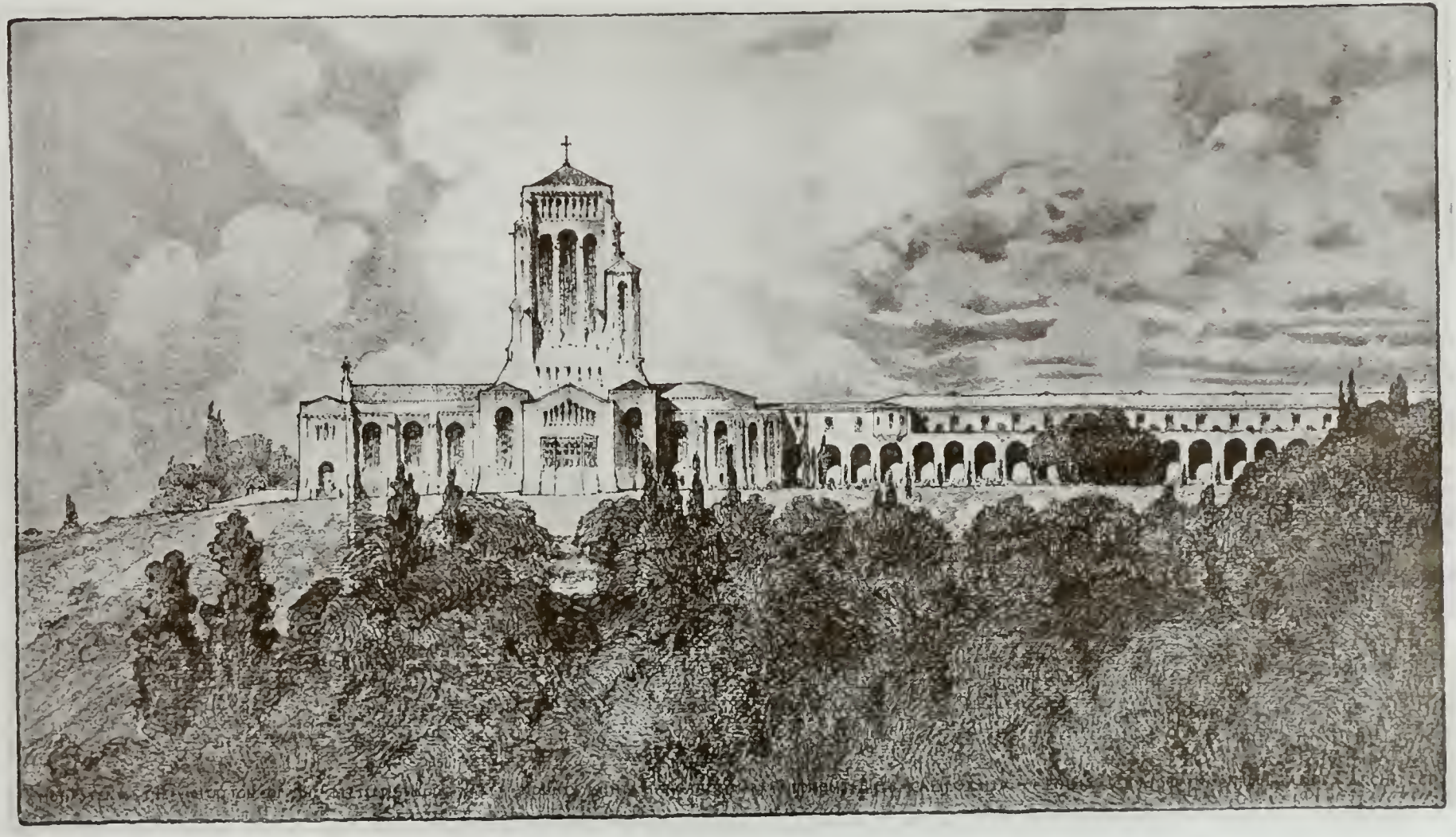


GENERAL VIEW FROM SOUTHWEST
MONASTERY OF THE VISITATION OF THE BLESSED VIRGIN MARY
MOUNT SAINT MARGARET MARY, PIEDMONT HILLS CAL.
LOUIS CHRISTIAN MULLGARDT, Architect

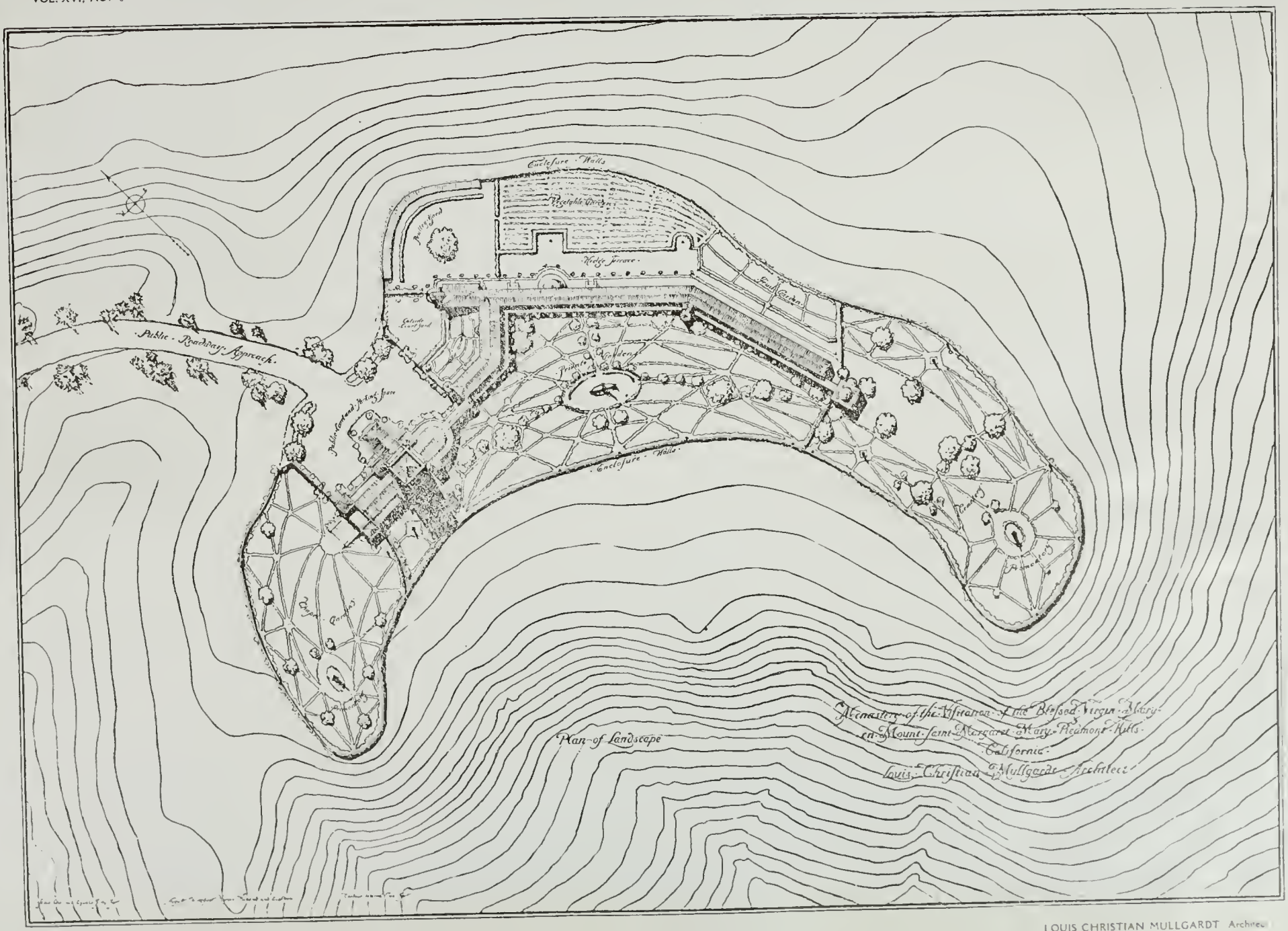
THE CHURCH FROM THE CHAPEL GARDENS
MONASTERY OF THE VISITATION OF THE BLESSED VIRGIN MARY
MOUNT SAINT MARGARET MARY, PIEDMONT HILLS, CAL
LOUIS CHRISTIAN MULLGARDT, Architect



WEST ELEVATION
MONASTERY OF THE VISITATION OF THE BLESSED VIRGIN MARY
MOUNT SAINT MARGARET MARY, PIEDMONT HILLS CAL
LOUIS CHRISTIAN MULLGARDT, Architect



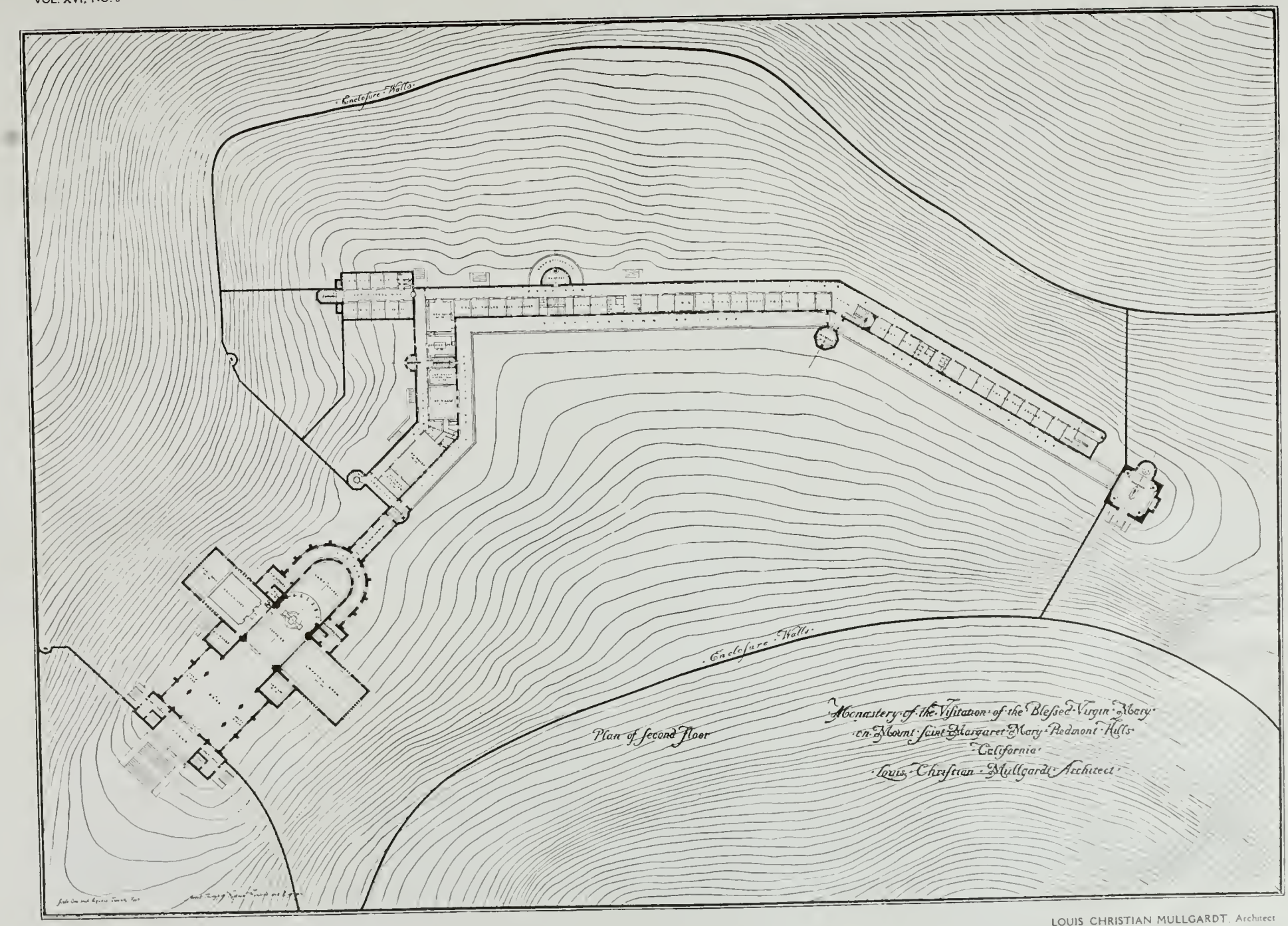
SOUTH ELEVATION
MONASTERY OF THE VISITATION OF THE BLESSED VIRGIN MARY
MOUNT SAINT MARGARET MARY, PIEDMONT HILLS CAL
LOUIS CHRISTIAN MULLGARDT, Architect



Plan Reproduced at Scale of 1 Inch, Equals 168 feet

PLAN OF LANDSCAPE
MONASTERY OF THE VISITATION OF THE BLESSED VIRGIN MARY

LOUIS CHRISTIAN MULLGARDT Architect


Enclosure Walls
Enclosure Walls
Plan of second Floor
Monastery of the Visitation of the Blessed Virgin Mary
on Mount Saint Margaret Mary Piedmont Hills
California
Louis Christian Mullgardt Architect

Plan Reproduced at Scale of 1 Inch, Equals 84 Feet

PLAN OF SECOND FLOOR
MONASTERY OF THE VISITATION OF THE BLESSED VIRGIN MARY
MOUNT SAINT MARGARET MARY, PIEDMONT HILLS, CAL

LOUIS CHRISTIAN MULLGARDT, Architect

COACHMAN'S COTTAGE ON THE ESTATE OF CHAS S. WALTON, ESQ., ST. DAVIDS, PENNSYLVANIA
D KNICKERBACKER BOYD, F A I A Architect

The Plant of the Pacific Coast Shipbuilding Company and the Town of Clyde

GENERAL VIEW OF CLYDE UNDER CONSTRUCTION

THE plant of the Pacific Coast Shipbuilding Company is situated on the shores of Suisun Bay, an extension of San Francisco Bay, near the confluence of California's most important two streams, the Sacramento and the San Joaquin Rivers. It is thirty five miles in an air line north-east of San Francisco. The area, 233 acres, is one of the largest in the country, being ten times what would have been considered a large site in the pre-war days of shipbuilding. The yard was designed for seven ways, of which four were constructed at the beginning. The entire plant has been laid out on the same principle, leaving generous provision for future growth along a site whose water frontage covers 2800 feet and which allows ample depth and space for launching large ships. The site was originally in part a marsh. The building of the yard was not without interest from the architectural standpoint. The job was done in what was then record time. Construction was begun on January 6, 1918. Exactly six months to a day from the breaking of ground the fourth keel was laid, and actual ship building was proceeding in all four ways. As an indication of the speed with which the shipyard was built it is interesting to note that the 400 foot plate shop with the mold loft above it, was built all told in forty working days, the actual erection requiring eighteen days. Similar speed was made in the construction of the other buildings, and several of the smaller ones, varying from 100 to 150 feet long, and of proportionate width, were built in from six to fourteen working days. The architect of the plant was Fred H. Meyer of San Francisco.

The shipyard got under way speedily and the first vessel was launched November 30th, 1918, at which time the yard had 2500 employees. This ship was the Diablo, one of the ten 9400 ton deadweight cargo carriers covered by the Company's first contract, which was made with the United States Shipping Board. The launching of this ship was made a public holiday by the residents of Contra Costa County, not only because of the importance of the industry to the county but also because the ship was given its name from Central California's guardian peak, Mount Diablo, within sight of which the shipyard is situated. Five thousand men, women and children witnessed the launching, at which Contra Costa County was officially represented by Superior Judge R. H. Lati-

CONSTRUCTION WORK AT CLYDE

GENERAL VIEW OF CLYDE UNDER CONSTRUCTION

mer. Justice Henry A. Melvin of the State Supreme Court was also a speaker. Ceremonies were presided over by R. N. Burgess, president of the Shipbuilding Company; Mrs. Burgess was the sponsor. After the ceremonies, on behalf of the county's citizens she sent a telegram to Mrs. Woodrow Wilson, who had given special sanction to christen the vessel Diablo.

Many difficulties were met and overcome in the period in which the yard was being brought to the stage where the first launching was possible. One of the difficulties was the housing problem. Contra Costa County is one of California's most industrial districts, many large plants being situated within a few miles of the shipyard. When the yard began to increase its working force, which is expected eventually to reach at least 4000 men, and probably more, housing accomodations in adjacent towns were found inadequate. Many of the employees took up their homes in the larger cities on San Francisco bay and a special train service over the Southern Pacific railroad was in operation to and from the yard.

The project of building a town especially for these ship workers was taken up, with the result that the town of Clyde is being constructed by the Clyde Company with the assistance of the United States Shipping Board. The work is now well advanced, and the predictions of a noteworthy industrial home town are being fulfilled.

The site of Clyde, embracing 186 acres, lies less than three miles from the shipyard, on level and rolling land flanked on the north, in the direction of the bay, by the county concrete highway and the main line of the Oakland, Antioch and Eastern Railroad, an electric system running from San Francisco to Sacramento. The Bay Point and Clayton line also passes the property and near by are the main lines of the Southern Pacific and Santa Fe Railroads. One of the features of the project is special electric train service from the main entrance of the town to the shipyard gates. The California State Railroad Commission recently gave its approval to plans for a steel overhead crossing above the steam lines for this electric service.

With the co-operation of the Shipping Board the town of Clyde is to be reserved for the employees of the Pacific Coast Shipbuilding Company, it being stipulated that no one else may buy a home or lot until at least six months after the conclusion of the war. The town has been designed, therefore, with the special requirements of these ship workers in view. It has been laid out and is being built with the maximum of attractiveness of both individual houses and ensemble in view. In all such matters as street work, sewers, lighting and the supplying of utility services, as well as in the plumbing, wiring and finishing of the houses, a high quality of material and service has been used. The work is being done to comply with stipulations similar to the building regulations of cities of a population of 200,000.

A parking system is a part of the plan, in which the

THE PLATE SHOP, YARD OF THE PACIFIC COAST SHIPBUILDING COMPANY

RIBS OF A 9400 TON CARGO BOAT. YARD OF THE PACIFIC COAST SHIPBUILDING COMPANY

embellishment of individual gardens has also been taken into consideration. The streets have been so laid out that between each two and paralleling them there will be a strip of planting sixty feet in width, giving ample room for beautification and in effect lending to each house the advantages of abutting on a park.

With a determination to make the town complete from all standpoints, provision has been made for shops, garages, etc, which will form a nucleus near the civic center and Trafalgar Boulevard, the thoroughfare which is the main entrance to the town. Another shopping street has also been provided for at the further or eastern end of the town.

The residents' social center will be represented in the beginning at least by the $150,000 hotel, work on which was started in the latter part of 1918. The hotel, containing approximately 110 rooms, will comply with the general requirements for solidity of construction, and the maximum of comfort and convenience for the occupants has been carefully kept in mind in all details. The dining room and lobby are to be housed in what may be described as a separate pavilion, adaptable to moving picture shows, dances and entertainments and similar events.

The homes, of which there were 94 under way at the time of the shipyard's first launching, are in general of five, four and three rooms, built in such number to average perhaps four rooms each. A few larger houses will be erected. All are to be of wood construction, with brick foundations, plastered inside, and with exterior of plaster, shingles or resaw, singly or in combinations. Most of the houses will have fire places and all will be wired for electricty.

The character of California's climate, the topography of the region about Clyde and other local characteristics have been taken into consideration in designing the homes, in which English types have been utilized. Another harmonious detail is the adoption of street names reminiscent of the Clyde shipbuilding district and of maritime history.

Most of the homes have been designed by E. W. Cannon, of Oakland, California, and some, as well as the hotel, by G. A. Applegarth, of San Francisco. The construction work is being done under the direction of A. H. Markwart, of San Francisco, General Manager of the Clyde Company. The Company also had the benefit of the advice of B. R. Maybeck, whose achievements, including those in the designing of the Palace of Fine Arts at the Panama Pacific International Exposition, need no enumeration.

THE ARCHITECT

VOL. XVI SAN FRANCISCO, DECEMBER, 1918 NO 6.

Editorial.

THE low estate of the industrial arts is a common topic of discussion in artistic circles and art journals; and, we are inclined to think as we look about us, a legitimate one—(although it is not clear why the fine arts as well should be entirely excluded from the comment). All efforts to discover the causes and ameliorate the conditions deserve careful attention, and it is therefore with interest that we have received a communication from the Metropolitan Museum of Art in New York setting forth its plan to turn its resources to practical account. The Museum has established a department devoted specificaly to the requirements of producers and dealers in industrial art objects, a department which will make every effort to render accessible the invaluable resources of the collections for the betterment of American design and craftsmanship. This office will be in charge of Mr. Richard F. Bach, of Columbia University, well known for his contributions to journals devoted to architecture and the industrial arts. It is planned to make this departure on the part of the Museum directly useful to all designers and producers, dealers and manual craftsmen engaged in any way in connection with the making or selling of furniture, fabrics, floor coverings, clothing, metal work, woodwork, jewelry, laces, and other industrial art branches. An important function of Mr. Bach's department will be active co-operation with journals devoted to the arts.

In looking for remedies to relieve the artistic situation we are prone to see no further than what we term art education, which only too frequently means furnishing to prospective designers a smattering of archaeology. Neither abstract reasoning nor consideration of historical facts warrants excessive reliance in so facile a remedy. Some of the most creative epochs have been equipped with no knowledge, or with the most incomplete knowledge, of the achievements of previous eras. More important as affecting the really creative designer than a knowledge of the past seems to be the complicated interplay of social and economic forces which determines his attitude toward life and the way he moves and feels in the world. In other words, the real problem is not so much the formal instruction of the individual designer as the creation of a social environment in which art is desired and in which it can be spontaneously and joyfully created.

We have no intention, however, to decry the recent effort of the Metropolitan Museum. All improvement is to be welcomed. The active co-operation of the richest collection in America of fine and decorative art is certain to be of genuine value.

LAUNCHING OF THE DIABLO, YARD OF THE PACIFIC COAST SHIPBUILDING COMPANY

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December—	A Branch of the Eucalyptus Family.

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Containing List of Manufacturers, Their Representatives and Serviceable Literature

ASBESTOS BUILDING LUMBER

Keasbey & Mattison Co., Ambler, Pa.

J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Illustrated and descriptive pamphlet, 7¾x10¾, 8 pp. Pamphlet, 4x8½, 8 pp. Price list, 3½x6¼. Literature of various sizes, samples, etc. "Service Sheets," working drawings, details of application, size 16½x21½.

ASBESTOS CORRUGATED SHEATHING

Keasbey & Mattison Co., Ambler, Pa.

J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Descriptive catalogue, 5¼x8¼, 24 pp. Catalogue of details and specifications for application of roofing and siding, size 8½x11, 40 pp. Lists of buildings covered. Price lists, 3½x6¼, 6 pp., and literature of various sizes, samples, etc. "Service Sheets," working drawings, details of application, size 16½x21½.

ASBESTOS SHINGLES

Keasbey & Mattison Co., Ambler, Pa.

J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Illustrated catalogue. Detail specifications, 8x10, 20 pp. Descriptive catalogue, various types of roof covering, 5¼x8¼. Various pamphlets, 3¾x6. Current price lists, 3½x6¼, 6 pp. Lists of buildings and literature, various sizes, samples, etc. "Service Sheets," working drawings. Detail of application, size 16½x21½.

BARS, REINFORCING

Pacific Coast Steel Co., Rialto Building, San Francisco, Cal.
Square, round and corrugated.

BRICK, ENAMELED

Los Angeles Pressed Brick Co., Frost Bldg., Los Angeles, Cal.

United Materials Co., 5 Crossley Bldg., San Francisco, Cal.
Catalogue on "Enameled Brick for Facing," illustrating and listing names of prominent buildings finished with Enameled Brick. 5x7½, 48 pp.

BRICK, FIRE AND REFRACTORIES

Los Angeles Pressed Brick Co., Frost Bldg., Los Angeles, Cal.

United Materials Co., 5 Crossley Bldg., San Francisco, Cal.
Descriptive catalogue, 5x7, 54 pp.

Simons Brick Company, 125 West Third Street, Los Angeles, Cal.

BRICK, PRESSED

Los Angeles Pressed Brick Co., Frost Bldg., Los Angeles, Cal.

United Materials Co., 5 Crossley Bldg., San Francisco, Cal.
Moulded and Ornamental Pressed Brick. General catalogue. 5x7, 54 pp.

Simons Brick Company, 125 West Third Street, Los Angeles, Cal.

BUILDINGS

Asbesto-Crete Buildings Co., 1927 Market St., Philadelphia, Pa.

J. A. Drummond, 245 Mission St., San Francisco, Cal.
Fireproof, Portable and Permanent, Inexpensive Buildings for use in Schools, Garages, Camps, Hospitals, Barracks, Seashore Bungalows and Oil Service Stations.

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Santa Cruz Portland Cement Co., Crocker Bldg., San Francisco.

Standard Portland Cement Co., Crocker Bldg., San Francisco, Cal.
Bulletin 12 pp. Size 6x9; also furnish bulletins and specifications for various classes of work requiring Portland Cement.

CORK FLOOR

Van Fleet-Freear Co., 120 Jessie Street, San Francisco, Cal.
Illustrated catalogues, etc.

DECORATORS, INTERIOR

O'Hara & Livermore, 522 Sutter Street, San Francisco, Cal.
O'Hara & Livermore, 253 East Colorado Street, Pasadena, Cal.

ELECTRICAL EQUIPMENT

Keasbey & Mattison Co., Ambler, Pa.

J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Descriptive Pamphlet, 3½x6. 12 pp. Descriptive, 4x8½. 8 pp. "Service Sheets" working drawings. Detail of application. 16½x21½.

Walter Both, 1645 Mission Street, San Francisco.

ELEVATORS

Otis Elevator Co., Eleventh Avenue and 26th Street, New York.

Otis Elevator Co., 2300 Stockton Street, San Francisco, Cal. Offices in all principal Coast cities.
Otis Electric Traction Elevators. Bulletin. 6x9 in. 28 pp.

ESCALATORS

Otis Elevator Co., Eleventh Avenue and 26th Street, New York.

Otis Elevator Co., 2300 Stockton Street, San Francisco, Cal. Offices in all principal Coast cities.
Otis Escalators. Bulletin. 6x9 in. 36 pp.

FACTORY EQUIPMENT

Manufacturing Equipment and Engineering Co., Framingham, Mass.

J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Bulletins and various literature. "Sanitary Washbowls," 6x9 in., 8 pp. "Metal Lockers," 6x9 in., 8 pp.; "Plumbing Fixtures," 6x8 in., 8 pp.; "Metal Stools and Chairs," 6x9 in., 8 pp.; "Metal Storage Racks," 6x9 in., 16 pp.; "Bubbling Fountains," 6x9 in., 4 pp.

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W. P. Fuller & Co. Principal Coast cities.
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National Mill & Lumber Co., 318 Market Street, San Francisco, Cal.
Pamphlet. 3½x6⅜ in. 4 pp.

LABORATORY FURNITURE

Leonard Peterson & Co., 1234-48 Fullerton Ave., Chicago, Ill.

J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Catalogue No. 9 for Chemistry, Physics, Biology, Physiography, Domestic Science, Pathology, Hospitals, Filtration, City Testing, and Industrial Plants. 7x10 in., 95 pp.

LANDSCAPE ENGINEERS

MacRorie-McLaren Co., 141 Powell Street, San Francisco, Cal.
Descriptive catalogue. 5x8¾. 52 pp.

LIGHTING EQUIPMENT

The Reflectolyte Co., 914 Pine St., St. Louis, Mo.

J. A. Drummond, 245 Mission Street, San Francisco, Cal.
Reflectolyte, containing specifications, illustrations and engineering data for superior indirect illumination. 7¾x10½ in., 24 pp. Folder, 3½x6¼ in., illustrating the Junior Reflectolyte for inexpensive installation.

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Illustrative of designs for mantel. 5x6 in. 54 pp.

MILL WORK

National Mill & Lumber Co., 318 Market Street, San Francisco, Cal.
Catalogue of Moulding Columns, Doors and General Mill Work. 7x10. 94 pp.

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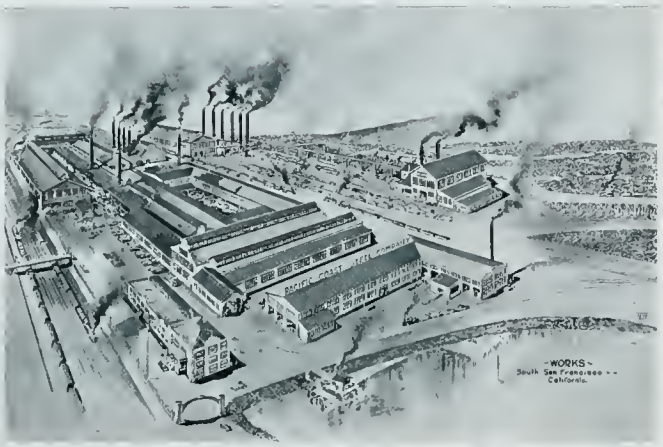

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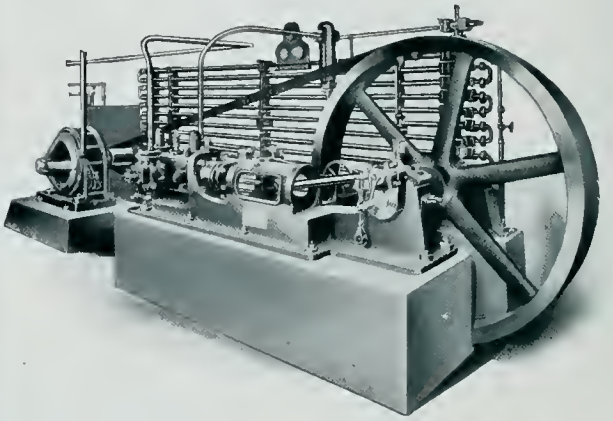

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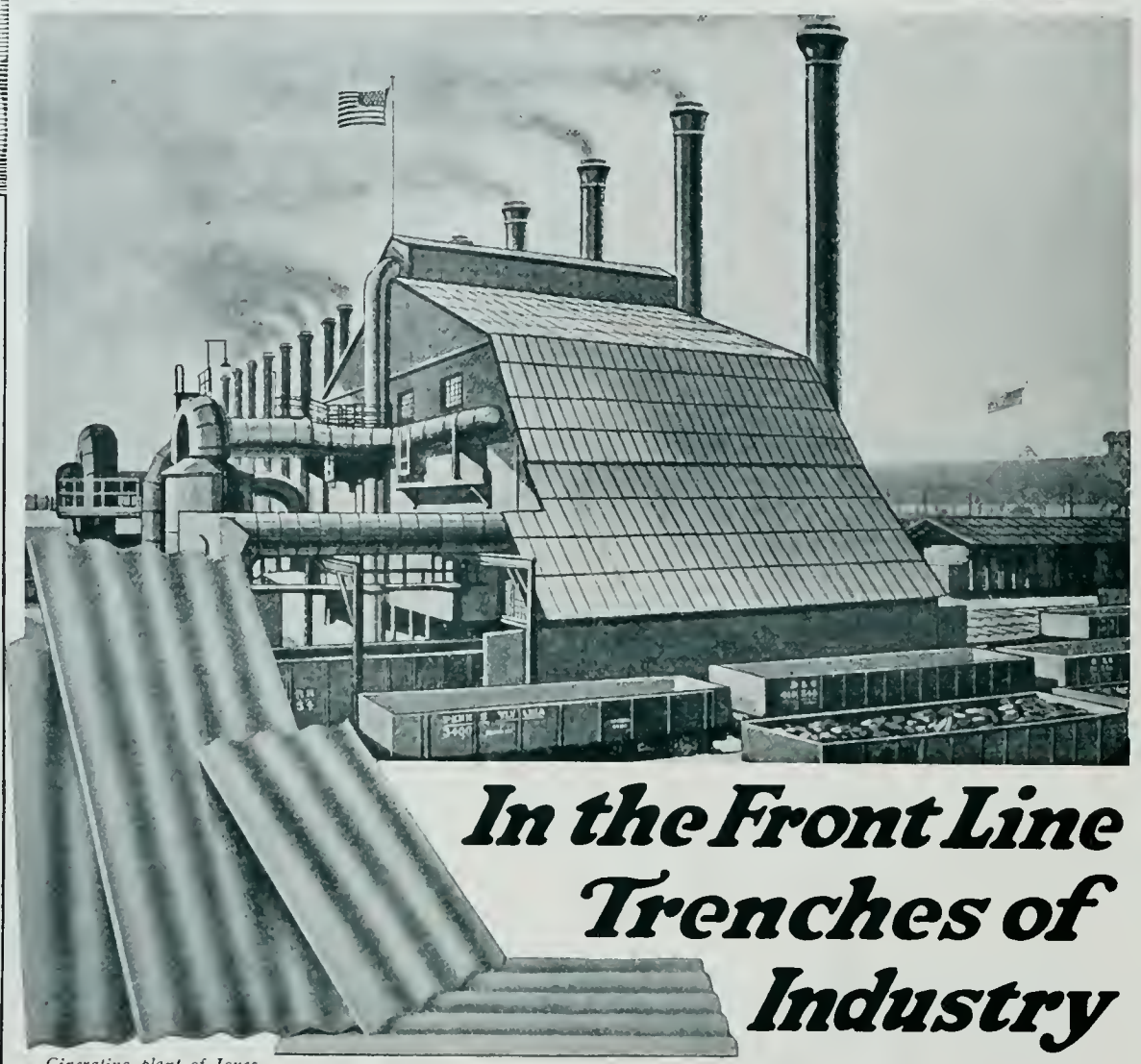

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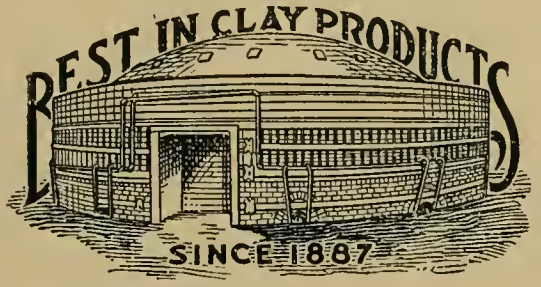

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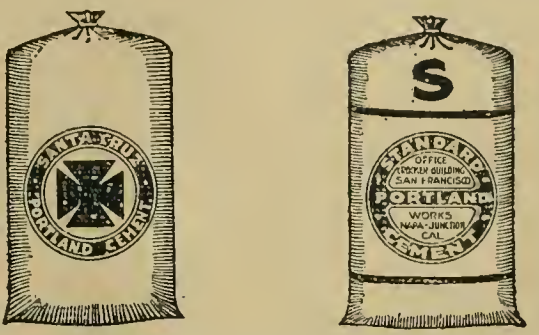

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